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THE LEARNER VARIETIES OF THE CHIKASHA ACADEMY: CHICKASAW ADULT LANGUAGE ACQUISITION, CHANGE, AND REVITALIZATION

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Abstract

This dissertation focuses on a specific language revitalization method used by the Chickasaw Nation, currently located in Oklahoma. Language revitalization refers to any effort intended to increase the use of a language, usually an endangered language that has a decreasing number of speakers. The Chickasaw language is severely endangered, with an estimated 50 native speakers who are all over the age of sixty. As part of their language revitalization efforts, Chickasaw Nation has created the Chikasha Academy, a program designed to teach the language to adults. The goal of the program is to produce conversationally proficient adult speakers after two years in the Academy. This research has focused on the successes of the learners in the Academy as they learn their language.

This dissertation analyzes how the adult learners in the Chikasha Academy are learning the language, in terms of: 1) what they learn, 2) what order they learn it in, and 3) what level they reach in their learning after one year. Specifically, the research focuses on the learners' morphosyntax (how they create words and sentences) and discourse (how they connect their sentences). Expectedly, when compared to both published descriptions of Chickasaw, which are based on native speakers, and the speech of the native speakers involved in the Chikasha Academy program, the adult learners' morphosyntax and discourse structures have noticeable differences. However, what they learn successfully far outweighs these differences.

In the Chikasha Academy, several adult learners meet daily with native speakers for structured immersion sessions. All sessions are recorded by the Chickasaw Nation and these recordings are the main data analyzed in this dissertation. Supplementing this

data are interviews with speakers and learners involved in the Academy. I interviewed both speakers and learners about their lives and language use, asking them open-ended questions. Speakers were additionally interviewed with grammaticality judgment tasks, which used recordings of learner utterances and asked speakers to give their impressions and judgments about what they heard. The judgment tasks allow the true experts of the language, the Chickasaw speakers, to determine what changes are acceptable.

Given the current situation of Chickasaw, the adult learners in the Chikasha Academy will soon be the only living speakers of the language and will be the future teachers of the language. Many Native North American communities are in similar situations, and yet few adult language learning studies of Native North American languages exist. For Chickasaw Nation, the results of this dissertation directly assist in the improvement of their language revitalization efforts during this critical time. The results may also assist other language revitalization programs in similar situations. This dissertation research also contributes to our understanding of adult second language acquisition and language change, particularly in the context of language revitalization.

Chapter One: Introduction

"I remember growing up, my grandpa always told me, he said 'Don't ever be ashamed of your language,' and that's the way I feel, y'know. I'll talk to anybody that'll speak Chickasaw."
-Stanley Smith

"So now, we're doing this kind of thing, y'know, and that's great, I think that's great, y'know. At least somebody's gonna learn Chickasaw and continue it. And hopefully these guys here will begin to teach."
-Jerry Imotitchey

"I'm very proud of the young kids here that have learned and I really - well I call them young kids, cause I've got grandkids as old as they are! I'm very proud of these guy that are working here, very proud, I was really amazed. They're learning well, they're doing really well."
-Hannah Pitman

Languages persist and persevere when they are spoken by their community, passed down between generations through a process called intergenerational transmission. Chickasaw Nation has recently begun a program, called the Chikasha Academy, that is centered on passing their language on to a younger generation through a unique intergenerational context where elder speakers converse for many hours, several days a week, with young adults. The Academy is designed to produce conversationally proficient adult speakers after two years in the program. The new young adult speakers will help carry the language into the future and pass it on to future generations. Intergenerational transmission usually occurs between a parent and child, but adult immersion programs like the Chikasha Academy restart intergenerational transmission in a novel context that paves the way for future parent to child interaction in the language. This dissertation is focused on the successes of the learners in the Academy as they learn their language from their elders in this unique context.

Chickasaw is a Muskogean language spoken today almost exclusively in Oklahoma. Originally, the Chickasaw people lived in the southeastern United States, but beginning in 1837 they were forcibly removed to Indian Territory, now Oklahoma. The Chickasaw Nation service area currently expands over thirteen counties in southcentral Oklahoma and all but three speakers live there. Today all native speakers of Chickasaw are over the age of sixty, and there are approximately fifty remaining speakers. The Chickasaw Nation is dedicated to the continuation of their language and has an active language revitalization program. The primary goal of the program is two-fold: 1) to to create new conversational speakers of Chickasaw, and 2) to provide high quality language learning opportunities for Chickasaw citizens worldwide.

In the Chikasha Academy, several adult learners meet daily with native speakers for structured immersion sessions. All sessions are recorded by the Chickasaw Nation and these recordings are the main data analyzed in this dissertation. Supplementing this data are interviews with speakers and learners involved in the Academy. This dissertation analyzes how the adult learners in the Academy are learning the language, in terms of: 1) what they learn, 2) what order they learn it in, and 3) what level they reach in their learning after one year. Specifically, the research focuses on the learners' morphosyntax (how they create words and sentences) and discourse (how they connect their sentences). Expectedly, when compared to both published descriptions of Chickasaw, which are based on native speakers, and the speech of the specific native speakers involved in the Chikasha Academy program, the adult learners' morphosyntax and discourse structures have noticeable differences. However, what they learn

successfully far outweighs these differences and many of these differences will likely disappear as they continue learning.

While there are probably hundreds of language revitalization programs around the world, there is very little published research about the outcomes of these programs, that is whether their efforts are leading to the creation of new speakers (O'Grady and Hattori 2016). The few studies that exist (e.g. Peter et al. 2008) discuss changes in how the learners are speaking the language and, most importantly, communicate these changes to the language programs. Providing this information to the programs allows them to adapt their language teaching methods in order to improve the program outcomes. Also, publication of such studies allows language revitalization programs to learn from each other and continuously improve their methods and planning (O'Grady and Hattori 2016). This dissertation seeks to add to this new area of research in endangered languages by examining the speech of the new speakers emerging from one of the Chickasaw language revitalization efforts. The dissertation research project is collaborative and community-based, designed to meet both academic research needs and the needs of the speech community (Yamada 2007).

This first chapter introduces the Chickasaw people, both collectively and individually, and the language revitalization efforts of the Chickasaw Nation. The first section of this chapter focuses on defining concepts necessary to further discuss and understand language shift. Section 1.2 provides a summary of the history of Chickasaw language shift and the interrelated historical changes that caused and accelerated language shift. Section 1.3 summarizes contemporary Chickasaw language revitalization efforts with a focus on describing the Chikasha Academy. Section 1.4

describes the individuals who were involved in this study, the learners and speakers of the Chikasha Academy, providing brief biographies with a focus on their language. Combined, the sections of this chapter detail the core processes involved in language shift and revitalization while also providing detailed Chickasaw examples that are contextualized in history. In introducing the current linguistic situation of Chickasaw, this chapter seeks to go beyond listing the usual numbers and statistics. Section 1.5 outlines the rest of the dissertation chapters.

1.1 Key Concepts in Language Shift

This section defines and describes, in abstract terms, important processes that affect and enact language shift. By first considering these processes abstractly, the reader can understand the dynamics of each concept both separately and interconnectedly. This section complements the other sections of this chapter, which detail the specific history of Chickasaw language endangerment, their recent language revitalization efforts, and the lived experiences of today's speakers and learners. Thus the other sections of this chapter provide specific examples of many important concepts first defined and explored in this section. Throughout this chapter when non-Chickasaw examples are used, they are most often specific to Native North America, as that is where my research and the Chickasaw Nation are situated.

Language endangerment is the result of LANGUAGE SHIFT, which occurs when a language community shifts their use from one language to another. Most commonly, communities shift their language use to a majority language, which is the one spoken by the majority culture. "Majority" here may refer to the group with the largest population, and/or the group that has political, economic, or social power over other groups

(Grenoble 2011). Language shift does not always result in language endangerment; the shift often occurs only within certain domains, certain ages, or certain sectors of a language community. For example, first-generation immigrants may become bilingual and shift to use the dominant language when at work or in other public domains, but retain the use of their language in the home or in other private domains. They may maintain a balanced bilingualism and use both languages fairly equally, or they may shift to use one language more than the other throughout the course of their lives. But as long as the immigrant language is still spoken by a majority group elsewhere in the world, the language is not considered endangered even though language shift has occurred. However, when an entire language community shifts most of their usage to another language, then their language becomes endangered. Language shift is one type of language change.

The term LANGUAGE COMMUNITY is a linguistic notion that refers to all persons who speak the same language (Grenoble and Bert 2011). Endangered language communities are, by definition, small in size. But language shift also creates extreme changes in a SPEECH COMMUNITY, which is a sociolinguistic notion that refers to all persons in regular communication who have agreed upon norms of how to speak (Grenoble and Bert 2011). The Chickasaw speech community at one time consisted of persons who only spoke Chickasaw, but language shift changed what languages they spoke, where they spoke them, and who they spoke them with. Language endangerment causes a reduction in the size of the language community, but not necessarily the speech community. Separating these two notions of communities is not always possible or useful in endangered indigenous communities, which are better conceptualized as a

combination of both notions (Grenoble and Bert 2011). The small number of speakers and difficulty in counting speakers (discussed later) make even identifying the language community difficult. The goal of language revitalization is to re-build the endangered language community, by restructuring the speech community to value the endangered language and increase the size of the language community by creating new speakers of the endangered language.

Language shift can occur gradually over the course of many generations or rapidly within the span of one or two generations. RAPID LANGUAGE SHIFT (RLS) is the specific kind of language shift that has created many of the endangered language communities around the world (Fishman 1991). When RLS begins, the monolingual community shifts toward a community of bilingual speakers. At this point, a situation of transitional bilingualism may occur, where some of the bilingual community primarily speaks the majority language while some of the bilingual community primarily speaks the minority language and the ratio of these populations remains fairly stable. But if the shift continues to be rapid, and the bilingualism becomes unstable, then the entire community becomes bilingual speakers who are dominant in the majority language to the detriment of the minority language. The community then begins to use the majority language in domains that had previously only ever been occupied by the minority language, most notably in the home. If RLS continues still, the community becomes full of monolingual or near monolingual speakers of the majority language with few or no persons capable of communicating in the minority language. In the most extreme cases, which unfortunately includes Chickasaw and many others in Oklahoma, the community can shift so rapidly from (nearly) monolingual in the minority language to (nearly)

monolingual in the majority language, that this shift may occur in the span of one or two generations.

Even if language shift does not begin rapidly, there is a crucial turning point after which shift will always progress rapidly, and that point is the loss of INTERGENERATIONAL TRANSMISSION. Intergenerational transmission refers to the natural passing down of language between caregiver and child (Fishman 1991). Everyone learns their native language(s) through this process. The loss of intergenerational transmission may be either consciously or unconsciously done, but it occurs when the use of a language stops in the home or decreases to the point that children do not naturally pick it up. Whether or not a language community still has intergenerational transmission is the most important measure of whether or not the language is in some state of endangerment (O'Grady and Hattori 2016, Simons and Lewis 2013, Grenoble 2011, Krauss 2007). When children stop receiving the language from their parents, in other words when new speakers of a language stop being created, the number of speakers of a language will decrease steadily. The youngest people in a community who experienced intergenerational transmission often receive the label of "last speakers" (although the variable use of the term "speaker" is discussed later) or "last generation". As the generation of last speakers ages in an endangered language community, the number of speakers will decrease very rapidly. In Native North America, 75% of the indigenous languages spoken in 1950 today have no speakers or have only a small number of elder speakers (Simons and Lewis 2013). This highly accelerated language shift is due to the loss of intergenerational transmission.

RLS and the loss of intergenerational transmission in a community creates a continuum based on linguistic abilities that often somewhat follows generational lines, resulting in a variety of SPEAKER TYPES. There are many terms for the different types of speakers found in endangered language situations, most of them created and employed by academics (Dorian 1981, Evans 2001, Grinevald and Bert 2011). At one end are monolingual speakers of the minority language who have always and primarily spoken their language, and may have none or only limited abilities in the majority language. They are always labeled as fluent speakers (Grinevald and Bert 2011). For most endangered language communities in Native North America, these speakers are of the oldest generation(s). Next are bilingual speakers who vary in their abilities in each of the languages, with various terms to distinguish them by their different abilities. The unifying feature of every type of bilingual speaker is that they learned the minority language during childhood, either before or simultaneous to learning the majority language. Some bilingual speakers are labeled as fluent speakers by their community and/or by academics, often and especially the bilinguals who are dominant in the minority language and/or have regularly used that language throughout their life (Grinevald and Bert 2011). However, bilingualism is not a permanent skill and disuse can cause bilinguals to forget some, much, or all of what they once knew in a language.

The loss of knowledge of a language due to disuse is referred to as LANGUAGE ATTRITION. Language attrition often occurs in bilinguals who become dominant in one language and shift to rarely use the other language. Speakers who once knew their language but have forgotten some, most, or all of it due to disuse are called heritage speakers (Polinsky and Kagan 2007). The term heritage speaker is borrowed here from

the study of language acquisition. In many publications on language revitalization and documentation, these speakers are referred to as semi-speakers (Dorian 1981, Grinevald and Bert 2011), though they have also been called “former speakers” or “formerly fluent speakers” (Campbell and Muntzel 1989). Heritage speakers are difficult to identify and define, because their abilities in the language vary greatly depending on the degree of attrition, in addition to many other factors relating to the specific context. Some heritage speakers can appear quite fluent, depending on the situation, and they themselves often over- or under-evaluate their own fluency (Grinevald 2003, Grinevald and Bert 2011).

Heritage speakers are particularly numerous at advanced stages of language shift, since by definition most of the population stopped using the language, resulting in mass language attrition (Grinevald and Bert 2011). The age at which attrition begins has a large impact on how quickly and how much of the original linguistic abilities are lost (O’Grady and Hattori 2016). Some scholars distinguish between heritage speakers who retained more of the language than others and refer to them as rusty speakers, especially if they are able to quickly re-activate or re-learn what they lost (Grinevald 2003). Other heritage speakers may only retain some limited abilities, but what they retain widely varies. For these types of heritage speakers, a large number of labels have been used to emphasize their specific retained abilities, especially the fact that they usually retain better understanding than speaking skills. These labels include passive bilinguals, receptive bilinguals, passive speakers, latent speakers, terminal speakers, or understanderers (Grinevald 2003, Sherkina-Lieber 2011, Basham and Fathman 2008, Grinevald and Bert 2011).

The disruption of intergenerational transmission can also lead to PARTIAL ACQUISITION of a language. Partial acquisition, also called imperfect or limited acquisition, occurs when a child is not exposed to enough of the language to achieve native-like proficiency in the language, but still naturally learns some pieces of the language. Like language attrition, partial acquisition creates a wide range of linguistic abilities, from having nearly native-like proficiency in specific situations to knowing a limited number of words and phrases. Also, like language attrition, partial acquisition is common in situations of rapid language shift because a speech community rarely speaking the minority language creates the environment for partial acquisition. Distinguishing between whether a speakers' limited abilities are due to attrition versus partial acquisition, or a complicated combination of the two, can be nearly impossible, and so the terms for these types of speakers overlap (Dorian 1981, Grinevald 2003). Speakers who partially acquired some of the language during childhood are also termed heritage speakers (Polinsky and Kagan 2007). Similarly, speakers who partially acquired more limited abilities in the language, and are often more comfortable or capable of understanding rather than speaking, are also called passive speakers or understanderers, or any of the other many labels listed in the last paragraph (Grinevald and Bert 2011). When heritage speakers become involved in language revitalization efforts, their linguistic abilities may seem to increase quickly as they (re)learn or remember their language, and some language activists have recently began referring to heritage speakers as "super learners," to emphasize their latent abilities (Taft 2017).

Lastly there are also some persons who have forgotten all of what they once knew due to advanced attrition or only ever learned a few memorized phrases due to

extremely partial acquisition. Rememberers refer to these persons who may be able to eventually recall some knowledge, usually limited to isolated words and phrases, through their involvement in language work (Grinevald 2003, Grinevald and Bert 2011). All or most of these speaker types are found in Native North American communities today. An individual's speaker type may change over the course of their life, as they either decrease their use of the language during a period of language shift or increase their use of the language during a period of language revitalization.

Some may question the usefulness of a typology of endangered language speakers, but the goal of the discussion of speaker types here is to emphasize the effect that language shift has on the endangered language speech community. The diversity of speaker types illustrates the disruption to the speech community caused by language shift, as the changing linguistic abilities force renegotiations of language use norms. The speaker types are meant to illustrate the continuum of linguistic abilities often found in endangered language communities rather than as a means to categorize individuals (Grinevald and Bert 2011). Language shift creates a continuum of linguistic abilities, from more fluent in the endangered language to more fluent in the dominant language, with some loosely defined categories: monolingual, bilingual, heritage speaker, and rememberer. The range of linguistic abilities creates a high amount of variation in how the endangered language is spoken in the speech community.

As intergenerational transmission decreases, the number of monolingual speakers will also decrease while the array of speaker types grows. During this time, what is meant by the term SPEAKER begins to change in the community (Evans 2001). Community use of the term Speaker often refers to whoever is the most knowledgeable

in the language, even if their linguistic abilities are not that of the "typical" (but too often non-existent) monolingual speaker (Evans 2001). For many communities, including Chickasaw, the more specific terms native speaker and fluent speaker have complicated uses. A native speaker refers to someone who learned their language beginning at birth, while a fluent speaker refers to a specific standard of language ability (Davis 2013). In the Chickasaw community specifically, the use of the term fluent speaker has begun to replace the use of native speaker, forcing a greater emphasis on perceived, and often demonstrated and displayed, linguistic abilities in order to receive the label of Speaker in the community (Davis 2013).

A community may accept bilinguals or heritage speakers as Speakers, or they may not; a community may designate someone as a Speaker that an academic would classify as a heritage speaker or a rememberer (Grinevald and Bert 2011, Evans 2001). Some or all of the different speaker types defined here may not even self-identify as Speakers because of their lack of regular use of the language or their perception of the differences in their speech compared to an older generation that is perceived as being more fluent (Grinevald 2003). Some individuals, however knowledgeable, may never step forward because they do not want to take on the burden of being labeled as a Speaker (Evans 2001). It is not possible or productive to categorize individual Speakers by their speaker type, but describing the continuum of speaker types shows the types of changes that a speech community affected by language shift experiences.

The range of speaker types found in an endangered language community varies. Some communities have the full range of speaker types discussed here, but many, like Chickasaw, no longer have monolingual speakers. In the Chickasaw community today,

the term Speaker refers to someone who is bilingual and has maintained their knowledge and use of Chickasaw (Davis 2013). Thus the current estimate of 50 Chickasaw Speakers refers specifically to this speaker type, but there are likely many persons with other degrees of knowledge of the language who fall into one of the other speaker types. Currently, there are an estimated two to three hundred heritage speakers of Chickasaw. As the number of Speakers decreases in an endangered language community, the knowledge held by other speaker types often becomes more valuable. In other words, every community individually determines who is a Speaker and who is not, and this determination can and does change over time (Evans 2001). For this reason, the term Speaker is recognized as a contested term (Davis 2013) and the counting of Speakers as a contested and difficult act (Evans 2001, Hill 2002, Grinevald and Bert 2011). In this dissertation, when referring to Chickasaw, I use the term speaker interchangeably with Speaker, meaning that the community has both defined the term and decided who it applies to. Indeed, the estimates provided here come directly from the Chickasaw Language Revitalization Program.

Language revitalization is also often called REVERSING LANGUAGE SHIFT, because its goal is to push back against the encroaching majority language and reclaim at least some of the domains that have shifted (Fishman 1991). The tipping point of language shift is the loss of intergenerational transmission, and when fighting to reverse language shift, the crucial goal is to re-establish intergenerational transmission (Fishman 1991). Because the goal is to have young children naturally acquire the language in their homes from their parents, the home domain is of special importance in language revitalization. Re-establishing intergenerational transmission as a natural

occurrence in the home requires young adults, who are at least conversationally proficient in the endangered language, to use the language exclusively or mostly in their homes. However, most endangered language communities in Native North America lack the resources, in terms of numbers and ages of speakers, to re-establish natural intergenerational transmission. In other words, most communities do not have speakers who are young enough to have and raise children, but rather most or all of their speakers are of an older generation. This problem is described as the MISSING GENERATION, because the child-bearing/rearing generation is essential to successful language revitalization and yet many endangered language communities do not have speakers in this generation (Hinton 2011).

Because most communities have the problem of the missing generation, many language revitalization efforts focus on teaching the language to young children in the school rather than in the home. Some communities, like the Cherokees in Oklahoma, are able to establish immersion elementary schools where most of the classes are conducted in the indigenous language (Peter et al. 2008). Establishing immersion schools for children requires having enough speakers to staff the school, which means having enough speakers who are young enough to care for small children. As mentioned, 75% of the indigenous languages of Native North America now have no speakers or have only a small number of elder speakers (Simons and Lewis 2013). In other words, most communities in Native North America not only face the problem of the missing generation, but also have no speakers who are young enough to even care for small children in a school program.

Due to the missing generations, many Native communities are focusing their language revitalization efforts on language learning programs for adults rather than children. The adult programs are designed to create conversationally proficient learners in the missing generations so that language learning programs for children can then be created. These conversationally proficient adult language learners are intended to carry the generation into the future, both in terms of teaching the language to children and becoming a new generation of young speakers themselves. In many endangered language communities, these adult learners are referred to as NEW SPEAKERS, or neo-speakers (Grinevald and Bert 2011). Section 1.4 describes Chickasaw efforts to create new speakers through their language revitalization program.

Scholars agree that language revitalization programs stand to be most successful if they address not only the linguistic effects of language endangerment, but also the underlying causes of language shift (Fishman 1991, 2001, Hinton and Hale 2001). The causes of language shift are various and specific to each endangered language community. Many common causes across the world include urbanization, globalization, and social and cultural dislocation (Grenoble 2011). Urbanization and globalization both bring and force people together, necessitating a language of wider communication (Grenoble 2011). Unfortunately, the shift to using the language of wider communication in education, government, and most public spheres (like media) pushes a certain social prestige onto that language and away from the minority language (Grenoble 2011). The socially and socioeconomically disadvantaged position of the minority community often becomes associated with the language, resulting in social dislocation (Grenoble 2011). Similarly, cultural dislocation occurs when the minority culture is perceived negatively

and abandoned in favor of the majority culture (Grenoble 2011). Social and cultural dislocation create certain attitudes and beliefs about a language, or language ideologies. Language ideologies often impact language revitalization more strongly than language policies do (Linn et al. 2002). Thus, changing negative language ideologies is often described as an important early step in language revitalization efforts (Fishman 1991, Hinton and Hale 2001).

More specifically to Native North America, some of the underlying causes of language shift include: genocide, settlement colonization, the death of up to 90% of the indigenous population due to disease at contact, forced acculturation and assimilation policies, intermarriage with speakers of other languages, dispossession and destruction of territory, English-only education through boarding schools, economic upheavals, the pervasiveness of English media (particularly television and the internet), strong monolingual English language ideologies, and racial and cultural discrimination (Simons and Lewis 2013, Nettle and Romaine 2000, McCarty 2008, Hinton 2008). The causes are numerous and inseparable, since no single event is solely responsible for language shift. For example, intermarriage with speakers of other languages is often cited as a factor of language shift (McCarty 2008). But, as with the many of the other underlying factors, intermarriage by itself is not detrimental enough to cause rapid language shift. Intermarriage had happened historically in most communities but the Native language remained one of, if not the, language of the home (McCarty 2008).

However, when compounded with the many other changes, intermarriage contributed to bringing English into the home and was one of several factors that ended natural intergenerational transmission in nearly all indigenous communities in Native

North America. The many underlying causes are referred to collectively as HISTORICAL TRAUMA. Historical trauma refers to "the accumulated intergenerational transfer of trauma that has resulted from past government actions taken against A[merican] I[ndian] peoples" (Deacon et al. 2011: 42). The next section describes some of the historical traumas specific to the history of Chickasaw, focusing on how these traumas interacted with language shift.

1.2 A Brief Chickasaw Language Ecology

The Chickasaw history presented in this section is structured chronologically with a focus on language shift. With the goal of describing the Chickasaw history of language shift without isolating this process from the many other contributing factors, this section presents a brief Chickasaw LANGUAGE ECOLOGY. Language ecology refers to "the interrelationships between speakers and their languages as situated in their full (contemporary and historical) context" (Grenoble 2011: 30). Understanding the historical context of language shift is believed to lead to better planning for language revitalization efforts (Grenoble 2011, Irvine and Gal 2000, Altman 2011, Mufwene 2004). An ecological framework to language shift considers how a language's vitality depends on its ecology; if the language ecology changes, so too will the language in response to these changes (Mufwene 2004). In considering Chickasaw language ecology, this section focuses on changes in Chickasaw territory, economy, and sovereignty and how the language has concomitantly responded to these changes. This section focuses on the historical changes in these areas of Chickasaw life, but also discusses some of the contemporary responses to address their long-lasting effects.

Contemporary efforts to reverse language shift in particular are described more fully in the next section on Chickasaw language revitalization.

For general historical details, I use the work of tribal historian Richard Green (2007) and publications from the Chickasaw Press (Larsen et al. 2010; Morgan 2010). In describing geographic, political, and economic changes, I rely on Jenny Davis's dissertation on contemporary Chickasaw ethnolinguistic identity (2013). Davis describes the Chickasaw Nation as a type of diaspora community because of their displacement from their homelands and lack of full political sovereignty (2013). In describing language shift, I rely mainly on Ivan Ozbolt's dissertation (2014), particularly his study of the literature's references to the Chickasaw community's history of language use. I also draw from the work of Kari Chew on intergenerational language learning and teaching motivations of Chickasaw community members (Lewis 2011, Chew 2015, 2016).

The Chickasaws' original homelands are in the southeast of the present-day United States. Over five hundred years ago, the Chickasaws and Choctaws were one tribe that spoke the same language. Their split is detailed in the Chickasaw migration story, which describes the journey of two brothers, Chikashsha and Chahta', and their people, who all followed a sacred pole (Green 2007). The sacred pole lead them by leaning in the direction they were to travel, until they crossed the Mississippi River (Green 2007). After crossing, Chahta' decided that the pole was no longer leaning and he and his people stopped, but Chikahsha believed the pole to still be leaning so he and his people went further, resulting in the split of the Choctaw and Chickasaw peoples (Green 2007). The Chickasaw original homelands are on the Tombigbee Highlands in

present-day Mississippi (Green 2007). Chickasaw and Choctaw are closely related languages of the Muskogean language family. The other Muskogean languages (Alabama, Koasati, Apalachee, Hitchiti, Mikasuki, Creek, and Seminole) are spoken in the southern and southeastern U.S. and are all also endangered.

In the late seventeenth and early eighteenth centuries, Chickasaw contact with the British increased due to colonialization and trade relations. When the British intermarried with the Chickasaws, they became bilingual and raised bilingual children, often referred to as "mixed bloods" (Ozbolt 2014, Gibson 1971). As trade relations between the two groups increased, the bilingualism of the "mixed bloods" became valuable and they became prominent economic leaders (Ozbolt 2014, Gibson 1971). However, most of the Chickasaw population remained monolingual Chickasaw speakers throughout the eighteenth century (Gibson 1971). During the early nineteenth century, scholars estimate that the only English speakers in Chickasaw territory were the bilingual "mixed bloods," white settlers, and slaves purchased from English speakers (Gibson 1971, Littlefield 1980, Krauthamer 2006). Slaves were known to be bilingual in English and Chickasaw, and some became monolingual Chickasaw speakers through the generations (Littlefield 1980, Krauthamer 2006). When missionaries began active work amongst the Chickasaw in the early 1800s, slaves were often used as interpreters (Littlefield 1980, Krauthamer 2006). These references in the literature indicate a mostly monolingual Chickasaw speaking population and that bilingualism was rare during the seventeenth and eighteenth centuries (Ozbolt 2014). The rapid changes that affected Chickasaws' geography, economy, sovereignty, and

ultimately language occurred during the nineteenth century with removal, boarding schools, and allotment.

During the early nineteenth century, the Chickasaws actively refused U.S. pressures and coercions to further cede their homelands in the southeast. But in 1830, President Andrew Jackson gave the Chickasaw Nation the ultimatum to either remain in Mississippi and lose all sovereignty or be removed to Indian Territory in present-day Oklahoma. Chickasaw removal occurred during 1837-1839 along what became known as the Trail of Tears. Davis (2013) describes the forcible removal of the Chickasaws from their southeastern homelands to Indian Territory as an example of their first diaspora through *en masse* relocation. The Trail of Tears is an iconic example of *en masse* relocation, experienced by several Native North American communities (Davis 2013). Furthermore, for the Chickasaws, removal resulted in a temporary political dislocation since they were forced to incorporate as a district of Choctaw Nation and become Choctaw citizens, as part of their negotiations to secure lands in Indian Territory (Green 2007). The Chickasaws formally re-established themselves as their own Nation with a new constitution in 1856 (Green 2007).

Chickasaw removal resulted not only in geographic and political changes, but also began the processes of social, cultural, and linguistic dislocation. Displaced families struggled to rebuild their lives in the new territory and one path to economic and political power appeared to be in the learning of English (Chew 2016). After removal, Chickasaws prioritized education and opened their own schools for their children, including the well-known Bloomfield Academy (Morgan 2010). One of their goals was to teach English literacy, which was viewed as important for economic and

political success (Cobb 2000). Running their own boarding schools was additionally an indication of self-determination and sovereignty during a time of political instability (Cobb 2000, Morgan 2010). However, all boarding schools, even the ones run by Chickasaw Nation, discouraged or at least excluded the use of the Chickasaw language (Lewis 2011). The notion that English was the language of economic, social, and political success resulted in the beginning of social dislocation. The boarding schools promulgated language ideologies that English itself is a valuable language and that Chickasaw is not. Such ideologies ran counter to the ideologies of older Chickasaws, who often believed that those who did not speak their language "were white" (Green 2007 (4): 169). As the graduates of the boarding schools internalized these ideologies, many stopped using Chickasaw in their daily lives (Chew 2016). The boarding schools forced young Chickasaws to become bilingual, and some graduates who stopped using Chickasaw did not pass on the language to their children, beginning the loss of intergenerational transmission. However, most of the community remained bilingual during the nineteenth century (Ozbolt 2014).

Allotment was another act of political and geographic upheaval in the Chickasaw community. Allotment refers to the General Allotment Act of 1887, also called the Dawes Act, which registered every tribal member and divided tribal lands between them, allowing the government to then take and sell any "excess" land (Green 2007). Allotment was yet another government policy intentionally designed to break up the tribe, by allowing an influx of white settlers into tribal lands (Lewis 2011). Davis (2013) positions allotment as another process of diaspora through internal diffusion, which she defines as the dissipation of populations across space but within their

homelands by the influx of foreign populations. In describing allotment as an example of diaspora, Davis not only refers to the change in geographic location but also to the disruption in access to sovereignty that simultaneously occurred (2013). This disruption is still enacted today; for example, U.S. police forces have co-jurisdiction within tribal lands and schools within the nation's service area are controlled by the U.S. Department of Education (Davis 2013). The control of schools particularly impacts language revitalization efforts because any language classes in a public school must be approved and certified by the Oklahoma State Department of Education (Davis 2013). Recently, the Oklahoma State Department of Education began issuing language teacher certifications based on tribal recommendations (Dolive 2013).

The period after allotment and removal, during the boarding schools, is when rapid language shift began in the Chickasaw community. Evidence shows that few Chickasaws remained entirely monolingual and an increasing number shifted to English at the turn of the century (Ozbolt 2014). Allotment drastically reshaped the local speech community within Chickasaw Nation, putting Chickasaw adults in much higher and more frequent contact with monolingual English speaking white settlers. At the same time, boarding schools were forcing Chickasaw children to become at least bilingual, with many graduates shifting entirely to English. Several Chickasaws interviewed during the mid-1900s, who were born in the 1890s, did not know the language and their parents, estimated to have been born in the 1860s, were reported to have understood but not speak Chickasaw (Ozbolt 2014), likely as a result of the boarding schools. Most of the population remained bilingual, as there are many accounts of Chickasaw children not knowing any English when they arrived at the early boarding schools during the late

nineteenth century (Ozbolt 2014). There is also evidence of white traders and settlers still learning Chickasaw during the late nineteenth century (Ozbolt 2014). Additionally, many Chickasaws born around the turn of the century remained first language speakers, evidenced in their language work (Humes and Humes 1973, Walker 2000) and personal histories (Ozbolt 2014, Green 2007, Cobb 2000). However, the younger generations were quickly shifting to English out of necessity.

In the early twentieth century, many bilingual Chickasaws are believed to have intentionally shifted to English not only because of language ideologies, but also because of discrimination. Chickasaws were openly discriminated against for asserting their linguistic and/or cultural identities during this time (Chew 2016). Being "Indian" in any way, including speaking the language, was believed to impede (socio-)economic success (Green 2007). This intentional language shift can be understood using Bourdieu's concept of capital, which is defined as any immaterial social assets that create an individual's social, cultural, or economic status (1977). Bourdieu divides capital into several intersecting types, but changes in cultural capital (gained from skill, knowledge, or education) and economic capital (gained from access and/or control of cash or goods) have been applied to an analysis of Chickasaw language shift (Davis 2013). Because English was the only language used in education and most employment, economic capital was shifted entirely from Chickasaw to English, causing many Chickasaws to equate a good command of English with an assurance of economic success (Ozbolt 2014, Davis 2013). With discrimination, the disruption of intergenerational transmission, and the relegation of Chickasaw to limited domains, the cultural capital afforded to users of the language also decreased (Davis 2013). Aware of

the growing cultural and economic capital of English, and the dwindling capital of Chickasaw, many bilingual Chickasaws consciously chose to shift their language use and stop speaking Chickasaw in all domains.

While many Chickasaw adults became bilingual out of economic necessity, some were still able to maintain the home as a domain for their language. For this reason, there are still speakers of Chickasaw today. Speakers who were born in the 1920s and 1930s are the eldest remaining. For example, native speaker Catherine Willmond, born in 1922, is well known for her four decades of work with linguist Pam Munro (Munro and Willmond 1994, 2008). The youngest members of the "last generation" of Chickasaw speakers were born in the 1940s and early 1950s (Ozbolt 2014). Today's speakers recall learning Chickasaw in the home, some from their grandparents rather than their parents, and learning English at school, often knowing only Chickasaw before beginning school (Ozbolt 2014). But many and more elders of this same generation did not grow up speaking Chickasaw in the home, and instead recall that their parents simply did not speak the language around them or that they actively discouraged them from learning the language (Ozbolt 2014, Cobb 2000). In mixed blood families, where one of the parents did not speak the language, intergenerational transmission was especially actively discouraged (Cobb 2000).

For many Native people, the boarding school may be pointed to as *the* event that ended natural intergenerational transmission in their family (Altman 2011, Cobb 2000). The boarding school era, which lasted until 1949, is often credited as being the most detrimental to the Chickasaw language (Cobb 2000, Lewis 2011, Ozbolt 2014, Chew 2016). Oklahoma boarding schools are most infamously known for the physical

punishments used to stop students from speaking their languages, but not all former boarding school students recall any physical abuse, and some even recall their time as a positive experience (Cobb 2000). However, the English-only policies of all Oklahoma schools forced the expansion of English into all domains of daily life. The simultaneous pressures on adults to be bilingual and the requirements of their children to be educated in English invited English into the last and most crucial domain, the home. Most Chickasaws born during the early twentieth century had some exposure to the language, and many spoke the language in their home, but they all became English speakers when they began school (Ozbolt 2014).

Even if parents were maintaining their home as a Chickasaw space, when children begin an English-only education, modern research has found that they almost always bring that language into the home (Hinton 2008). Bilingual parents are found to often accommodate their children and shift the home from (mostly) monolingual to include more English (Hinton 2008). Once English is brought into the home by the older children, the younger children then grow up in a more bilingual household with more exposure to English than their older siblings (Hinton 2008). For this reason, a common trend among Native American families is to find that the younger children in a family have the least fluency in the endangered language (Hinton 2008). Many Chickasaw speakers today are the oldest child in their family and have recalled how their younger siblings never learned or lost their ability to speak the language (Larsen et al. 2010).

After finishing school, many members of this generation were forcibly relocated to areas outside of the Chickasaw service area through another process of diaspora. The

Urban Indian Relocation Act of 1956 gave money to Native Americans to move to metropolitan centers like Los Angeles and Oklahoma City, with the goal of forcing assimilation and terminating nations (Morgan 2010). The Act created external diffusion, which refers to the dispersement of a people to areas outside of their homeland or established territory (Davis 2013). External diffusion has occurred in many Native communities; per the 2010 U.S. census, 78% of Native Americans and Alaskan Natives live outside of their tribal jurisdictions or citizen service areas (Davis 2013). Specifically for Chickasaw Nation, which has over 63,000 enrolled citizens, most citizens live outside of the service area (Davis 2013). The Chickasaw Nation service area is presently situated in south-central Oklahoma, occupying all or part of thirteen counties in the state with the capital in Ada, Oklahoma. Currently, over 17,500 citizens reside within the service area today (Morris 2016). The other 45,000 citizens who reside outside of the service area, either within other counties in Oklahoma or in other parts of the world, are referred to as citizens-at-large by the Nation.

Davis (2013) examines contestations of identity in Chickasaw Nation and finds that relocation and allotment are commonly referenced in discourses that position oneself within the Chickasaw community. Those who have always lived in the service area position themselves as more centralized members, by referring to how long their family has lived in the area or that they still live on the "original allotment" (Davis 2013). This discourse highlights the contemporary effects of relocation and allotment. Like allotment, the 1956 relocation act was designed to further break own Native communities and promote assimilation through diffusion (Davis 2013).

From the 1960s onward, Chickasaw disappeared completely from the home domain (Ozbolt 2014). But as more of the population spoke less Chickasaw, the disuse of Chickasaw in all domains of life created the conditions for mass language attrition among adults and partial, if any, language acquisition among children. Speakers who had children often married a non-speaker or consciously chose not to use the language at home, so that their children would not struggle in school or face the same discriminations (Ozbolt 2014). Because of the loss of intergenerational transmission, the mid-nineteenth century is when the majority of Chickasaws became either monolingual English speakers or heritage speakers, either by choice or by attrition and partial acquisition. As the overwhelming majority of Chickasaws became non-speakers of their language, the language could not be passed on to future generations.

Native churches remained a stronghold of tradition and language in many parts of rural Oklahoma throughout the mid-twentieth century (Morgan 2010). When all Native American nations were threatened with termination during the 1950s, the Seely Chapel movement worked to re-establish Chickasaw self-governance. Centered around the Seely Chapel church in Milburn, Oklahoma, the movement worked to have Overton James appointed as the governor of Chickasaw Nation as the choice of the people, a first step toward reclaiming self-governance with public elections (Morgan 2010). In 1907, with Oklahoma statehood, the U.S. government had dissolved Chickasaw self-governance and governors were then appointed by the federal government. Overton James won the appointment with the support of the Seely Chapel elders in 1963 and was sworn in on the church grounds (Morgan 2010). In 1970, James became the first publically elected governor of Chickasaw Nation since 1904 (Green 2007).

While this section's focus on historical traumas and language shift presents perhaps a dark view, the Chickasaw Nation is currently in the middle of a cultural and economic renaissance that began in the 1970s (Morgan 2010). Davis (2013) notes that as part of the renaissance, Chickasaw Nation has been experiencing de-diasporization, or the return of people and resources lost due to diaspora. Davis attributes this process in part to the economic aspect of the renaissance, which is due to the opportunities created for Native tribes with the 1988 Indian Gaming Regulatory Act (2013). The economic expansion of Chickasaw Nation has created jobs within the tribal jurisdiction, and Chickasaw Nation is today the largest employer of Chickasaw citizens (Davis 2013). In 1987, 90% of the tribe's budget was from the federal government; today they operate almost entirely on their own revenues (Davis 2013). Today, many citizens who had moved due to the Urban Indian Relocation Act of 1956 are returning home (Davis 2013, Morgan 2010). In some cases, the Nation has actively recruited citizens-at-large for specific positions (Davis 2013). The return of citizens-at-large to southcentral Oklahoma is again altering the local speech community, but this time by increasing the number of Chickasaws.

Chickasaw Nation has also recently experienced a rapid increase in the number of enrolled citizens. In the 1960s, there were around 6,000 citizens but today there are over 60,000 (Morgan 2010). Davis (2013) attributes this increase in part to the de-diasporization process, but also to the large number of services now available to citizens (2013). In spending their revenues, some Native nations use a per capita system, where every tribal citizen receives a certain amount of the revenue. Instead, Chickasaw Nation pours its revenues into services provided to citizens (Morgan 2010). The Nation

provides student grants and scholarships, elder housing and care, and comprehensive health care, in addition to many other services (Davis 2013). While some services are available to all citizens, including those at-large, many services are only available to those that live within the service area (Morgan 2010). The economic renaissance has allowed the tribe to address many of the contemporary effects of the aforementioned historical traumas through the provided services. For example, the Nation runs Homeland Tours that take citizens to visit their original homelands in the Tombigbee Highlands of Mississippi (Davis 2013). Additionally, the increased revenues have allowed the tribe to dedicate resources to language revitalization.

1.3 Chickasaw Language Revitalization Efforts

Language shift is a complicated process that involves many interconnected changes to all parts of a community's daily life. Language revitalization is an effort to change the course of language shift and will require an equally complicated response. For most Native North American communities, including Chickasaw, the goal of language revitalization is to essentially change the speech community, by creating spaces where their language is used in place of the majority language or alongside the majority language. In working towards this goal, Chickasaw Nation employs a wide range of language revitalization programming, described in this section.

Chickasaw language revitalization efforts have always been self-determined and a testament to their sovereignty over their own education, culture, and history. In 1963, Governor Overton James, the son of native speaker Vinnie May James Humes, was concerned about the language because he estimated that out of a tribal population of 6,000, only a few hundred were still speakers (Green 2007). In 1965, he asked his

mother and her husband, the Reverend Jesse Humes, to create a Chickasaw dictionary (Green 2007). The Humes dictionary, commissioned by the tribe, was the first dictionary of Chickasaw (Humes and Humes 1973). However, the dictionary did not stop or mitigate any of the causes of language shift, and the number of speakers continued to decrease.

In the 1980s, the Nation created some additional language teaching materials through a small language program situated in the Division of Education (Lewis 2011). For example, speaker Geraldine Greenwood created a language curriculum and short grammar (Ozbolt 2014). Speakers Yvonne Alberson, Jerry Imotichey, and Carlin Thompson created a workbook with an accompanying audio CD (Alberson et al. 1995). Isolated and unorganized efforts to teach the language in the schools existed across Oklahoma. Yvonne Alberson was the first to teach Chickasaw for credit in an elementary school in Tishomingo (Green 2007). Geraldine Greenwood taught at the schools at Mill Creek and JoAnn Ellis taught at various pre-school programs.

From 1994 to 2007, the number of Chickasaw speakers dropped rapidly from an estimated 1,000 to less than 600 (Hinson and Ellis 2008, Golla 2007). In 2007, the Chickasaw Language Revitalization Program (CLRP) was formed under the Division of History and Culture. One of their first efforts was a language survey, which highlighted both the shockingly small number of speakers and the desire for language learning programs. In 2009, as part of a general restructuring, the Department of Chickasaw Language (DCL) was created to house the CLRP.

The DCL has seven full-time employees, a Chickasaw Language Committee with 25 members, and several speakers who work as part-time consultants. The CLRP

consults with the Language Committee on language programming and all publications. The Language Committee meets every month, often to approve signage in Chickasaw for buildings within the Nation or to approve or create new words. Being a member of the Language Committee is a paid position, but most members also work as language teachers, translators, and mentors (Davis 2013). Additionally, the Language Committee regularly publishes language materials through the Chickasaw press (e.g. a prayer book in 2012). The DCL also works with linguistic consultants, such as Pamela Munro, Leanne Hinton, and John Dyson. The department frequently works with linguists and other researchers, both citizens and non-citizens (e.g. Lewis 2011, Davis 2013, Fitzgerald and Hinson 2013, Ozbolt 2014, Chew 2016).

The CLRP's current efforts can be divided into two types: immersion and enrichment. In language learning and teaching, immersion refers to an environment where only the language being learned, the target language, is used. Learners are taught through speaking and using the target language rather than being taught about the language, as occurs in most traditional school-based language programs, such as the typical foreign language classes found in American high schools. The enrichment efforts are everything that is not immersion. While enrichment efforts will not produce new speakers, they work in other ways to promote the language. Importantly, the enrichment efforts are the only language connection for nearly all citizens-at-large (Davis 2013). Recall that over seventy percent of the Chickasaw population are citizens-at-large, living outside of the service area. Citizens-at-large remain actively connected, with community councils and groups in 12 other states, and the Nation regularly sends representatives to these meetings (Davis 2013). In terms of language

revitalization, the DCL specifically creates programming that is remotely accessible for citizens-at-large, although these are all also used by citizens who live within the service area. Additionally, the enrichment efforts work to educate people about the language and its situation, promoting positive language ideologies among both Chickasaws and others (Davis 2013).

The immersion program is the core of the CLRP, as it is the only effort capable of producing new speakers of Chickasaw. In language learning research, immersion-based teaching methods are considered the most successful methods (Hinton 2001b, 2008). In particular, immersion schools with young children stand to have the greatest success in producing new speakers (O'Grady and Hattori 2016). Full immersion schools for children or adolescents are not possible for many communities, however, because they lack many or all of the necessary resources. Many communities do not have speakers of the language who are young enough or able-bodied enough to teach children, which is the aforementioned problem of the missing generation. Many communities do not have the funding to build and run their own immersion school, while also being situated in states that do not support public immersion schools due to English-only education policies (Hinton 2008). Many communities are a diaspora community, with children scattered across many states, or many communities may just simply not have enough children concentrated within a single school district to effectively fill a single immersion school (Hinton 2008). Some communities may face all of these problems simultaneously. Many of the same problems prevent communities from running smaller immersion programs for adults, which while not likely to be as successful as child immersion schools, such programs can begin to address the problem

of the missing generation by creating a small number of new speakers who are young adults. The CLRP is currently focused on adult immersion programming. In 2007, when the CLRP began, their first immersion program followed the Master-Apprentice learning method, a specific type of language learning method designed for endangered language communities with few speakers (Hinton 1997).

In response to the many challenges surrounding the implementation of a large-scale immersion program, the Master-Apprentice Language Learning Program (MALLP) was developed in 1992 (Hinton 1997, 2001b, 2008). The MALLP was initially developed by linguist Leanne Hinton and the Native California Network in response to the linguistic situation of California (Hinton 2001b). California, like Oklahoma, has a high number of indigenous Native American languages that are highly endangered, with most not being learned by children or spoken by persons of the parenting and teaching generations. Additionally, the majority of Native languages in California (and Oklahoma) face the problem of the missing generations. To address these problems, many unique to endangered languages, the MALLP is designed to be simple. Master-Apprentice requires only that a native speaker and an adult learner spend time together speaking only the target language (Hinton 2001b). After at least three years, an apprentice will have reached a conversational proficiency that allows them to begin teaching the language to others. Since its development, the MALLP has spread worldwide to indigenous communities across the United States, Australia, Canada, and in Finland, Japan and Brazil (Hinton 2008, 2011, Olawsky 2013, Olthuis et al. 2013).

MALLP was developed specifically for adult learners of endangered languages and draws on other approaches, methods, and techniques from language teaching. The concept of the MALLP is simple, but its success is grounded in the language acquisition theory that underpins its communicative and naturalistic approach. The MALLP focuses on developing communicative competence, which refers to the speaker's ability to communicate in the language appropriately, by knowing both the proper grammar of the language and the social and cultural knowledge of the speech community (Lee and VanPatten 1995, Hymes 1966). The MALLP follows the Natural Approach (Krashen and Terrell 1983), which believes all language learning should be similar to the way that young children naturally acquire their first language in the home. As Hinton describes it, MALLP encourages that masters and apprentices "behave in some ways like parents and children" (2008, p. 162). The Natural Approach emphasizes no translations into the students' native language, a focus on oral skills, no overt explanations of grammar, and that students learn grammar inductively (Reyhner 2003). MALLP also encourages that learning occur in a natural setting, such as in the master or apprentice's home, rather than in a formal classroom setting (Hinton 2008). MALLP discourages the use of written materials or overt grammar explanations during sessions.

MALLP incorporates techniques from other methods, such as TPR, which is a specific type of immersion method. Successful immersion depends on constant and comprehensible input. Master-Apprentice teams are encouraged to begin on the first day speaking only in the target language, even if the learner does not know anything in the target language. Through context clues and communicative learning, apprentices can discern meaning in the target language without needing a translation into English. The

TPR (total physical response) method is a type of immersion that allows learners to respond physically to linguistic cues. For example, in MALLP, the master gives the apprentice commands in the language and the apprentice responds only by physically performing the command, without having to speak the language (Asher 2012). TPR allows the learner to focus on the content of the message, rather than the form. In TPR, the learner associates actions with words (Asher 2012). TPR is most useful in the earliest stages of language learning, where the learner can participate without speaking, by expressing understanding in a nonverbal way.

Hinton has written extensively about MALLP (1997, 1999, 2003, 2008, 2011 Hinton et al. 2002). In several sources, Hinton gives ten points for successful language learning in the MALLP. These ten points succinctly and simply sum up the theories, approaches, methods and techniques that underpin the MALLP: leave English behind; make yourself understood with nonverbal communication; teach in full sentences; aim for real communication in your language; language is also culture; focus on listening and speaking; learn and teach the language through activities; use audiotaping and videotaping; be an active learner; be sensitive to each other's needs and be patient and proud of each other and yourselves (Hinton 1997, Hinton et al. 2002).

The MALLP also takes into account cultural considerations specific to Native North American communities. In Native North American communities in California and Oklahoma, the native speakers are also the oldest living generation and the least culturally assimilated (Hinton 1997). As such, they are often the least comfortable with taking on an authoritative instructor role, as is expected in traditional teaching which takes an egalitarian approach to language learning (Hinton 1997). MALLP instead

emphasizes a cooperative approach to language learning between masters and apprentices. In surveys of MALLP in endangered language communities, both masters and apprentices report feeling stronger ties to their community, an increased sense of communal pride, and stronger relationships between generations (Nicholson 1990, Park 2011, Olthuis et al. 2013).

The expected results of the Master-Apprentice program, after three years, are that the apprentice obtains conversational proficiency and begins teaching the language, with a hope that the master and apprentice remain lifelong language partners in all endeavors (Hinton 2001b). Master-Apprentice is today used by endangered language communities across the world, from Oklahoma to Canada, from Europe to Brazil to Australia (Hinton 2011). The program is so successful because it has addressed a problem prevalent in most endangered language communities: the need to create new speakers from a limited pool of elder speakers who are not trained or able to teach. Chickasaw Nation ran a Master-Apprentice program from 2007-2015 and then shifted to a new group model called the Chikasha Academy.

In 2015, the CLRP adapted their immersion program to a group model and named this new program the Chikasha Academy. The Academy follows all the principles of the MALLP, but the speaker and learners meet as a group rather than one-on-one and the sessions are loosely structured and lead by the experienced learners. When the Academy began, the experienced leaners were those who had had two to three years of experience in the MALLP. In the future, the experienced learners will be those who have had two years of experience in the Academy. The experienced learners set the topic and focus of each session, make sure that only Chickasaw is spoken, that

everyone speaks in full sentences, that all sessions are recorded, and most importantly, that the new learners stay involved and have opportunities to speak. The experienced learners use repetition and nonverbal cues and gestures to ensure that the new learners understand what is being discussed. When a new learner joins the Academy, they are expected to begin speaking Chickasaw on the first day.

At present, the Academy has six students who meet regularly as a group with one or more elder speakers. There are seven speakers who contract or work for the CLRP and partake in the immersion session as their schedules allow. When the group meets, they speak only in Chickasaw. When a learner begins the Academy, they are expected to become conversationally proficient after two years. The Academy meets for up to five hours a day, but on average less than that because of the many other demands on both speakers' and learners' time. The learners in the Academy are all employed full-time by the CLRP and work on the many other language revitalization efforts described in this section. The Chikasha Academy is an important space for intergenerational interactions in the Chickasaw language. This program provides a new domain where Chickasaw is spoken and forges new social relations among speakers and between speakers and learners. The progression of the adult learners through the Academy is the focus of the research in this dissertation.

Many communities engage in language revitalization efforts that are not immersion, including the Chickasaw Nation. The CLRP refers to their non-immersion efforts as enrichment. The enrichment efforts can be divided between non-media efforts, which are largely physical classes that a learner must be able to attend, and media efforts, which are print and digital resources that a learner can choose when,

where, and how to access. The non-media enrichment efforts include: a monthly youth language class (*Chipotaat Chikashshanompoli'*: Children Speaking Chickasaw Language Club), a summer language camp, youth sports classes, four semesters of secondary classes at Byng High School, four semesters of post-secondary classes at East Central University (ECU) in Ada, and community language classes offered in several locations across the tribal jurisdiction area.

The non-media enrichment programs are offered at several locations spread out across the Chickasaw Nation tribal jurisdiction area, but still require a learner's physical presence in order to participate. The children in *Chipotaat Chikashshanompoli',* ages 3-12 years old, compete annually in the Oklahoma Native American Youth Language Fair, an event run by the Department of Native American Languages at the Sam Noble Oklahoma Museum of Natural History in Norman, OK (Green 2007). The language fair has run since 2003, designed to recognize Native language teachers and students both across the state and across the nation. In 2016, the fair had over a thousand student participants, competing in events focused on singing, speaking, storytelling, dancing, writing, and drawing (ONAYLF website). Chickasaw Nation's summer youth language camps are activity-centered, where Chickasaw vocabulary is taught while also playing stickball or other games. The youth sports classes include a youth stickball team and a martial arts program, which both incorporate language as a part of learning the sport. The secondary classes at Byng and the post-secondary classes at ECU are both offered for credit. Both classes use the only textbook of Chickasaw, which heavily focuses on teaching grammar (Munro and Willmond 2008). The community classes are attended by any interested persons, but are also incentivized as part of the Individual Development

Plan (IDP) program. Through the IDP, all Chickasaw Nation employees (both citizens and non-citizens) can earn a monetary bonus by completing a certain number of hours in IDP programs.

The media-based enrichment efforts include both Nation-developed resources and citizen-led efforts. Media developed by the Nation include: three dictionaries (Humes and Humes 1973, 2015, and Munro and Willmond 1994), a grammar-based workbook (Munro and Willmond 2008), a bilingual prayer book (Chickasaw Language Committee et al. 2012), videos on the Chickasaw.tv website, "word of the day" and "word of the week" posts and e-mails through the Chickasaw Nation website, and a language app available on smartphones, tablets, and the ChickasawLanguage.com website. Citize-led efforts include Chickasaw language groups on Facebook. As with all efforts of the CLRP, all of the language included in media is approved by the Chickasaw Language Committee. For the most part, citizens-at-large only have access to the media-based efforts, which are largely lacking in terms of interaction and assessment.

A recent language survey has shown that citizens want more programming that is similar to an online class, where they are guided through the material, assessed on their knowledge, and can engage with other learners (Ozbolt 2014). In response to these needs, the CLRP has recently launched two new efforts. One is the creation of Rosetta Stone Chickasaw. The CLRP has partnered with the Rosetta Stone language software company to create four levels of the product, with forty lessons each. At the time of writing, the first level of Rosetta Stone Chickasaw is available free of charge to all Chickasaw citizens and their immediately family. The CLRP plans to use the Rosetta

Stone products in local high schools as for-credit courses. The other new program is an online language class for adults. The CLRP has plans to pilot an online adult course that is taught by a citizen-at-large working through the grammar-based workbook (Munro and Willmond 2008) and using video chatting to practice conversation.

In addition to teaching the language and promoting positive language ideologies, language revitalization efforts address some of the underlying causes of language shift. For example, the summer youth language camps are a way to reunite a community scattered by the diasporic processes of diffusion. The geographic locations also reconnect participants with traditionally and historically significant landscapes. For example, the choice of a site like the Chickasaw Cultural Center reaffirms identity, community, and heritage while the activities at the camp are designed to teach language. Access to education and employment, in other words access to economic capital, has been cited as a major cause of language shift for Chickasaw specifically (Davis 2013). Socioeconomic change has been cited as the main ecological pressure for Native American language shift in general (Mufwene 2004). As part of reversing language shift, the lack of economic capital is being addressed. The Nation has jobs that are only for speakers and the CLRP hires the learners of the Chikasha Academy as full-time employees. Additionally, all Nation employees can earn toward their monetary bonus by taking language classes to fulfill their IDP requirements. Because of these incentives, Davis (2013) has analyzed how the Nation has revalorized the language and in the process, recreated cultural and economic capital associated with speaking the language. Ethnographic interviews (Ozbolt 2014) have indicated a shift in attitudes and ideologies about the language in the last ten years, since the creation of the CLRP.

Interviewees recall how difficult it was to engage with speakers and how little the language was valued or heard or seen only a decade ago (Ozbolt 2014). But today, recent research suggests that positive Chickasaw language ideologies are more popular than they have been in the recent past (Lewis 2011, Davis 2013, Ozbolt 2014).

Changes in language ideologies and associated social and economic capital are encouraging for Chickasaw language revitalization efforts, and part of the Chickasaw renaissance that has been occurring since the mid-twentieth century (Morgan 2010). Chickasaw youth of today are growing up in a more encouraging environment for the Chickasaw language than their parents and grandparents did as the Chickasaw Nation works to re-shape the contemporary Chickasaw language ecology. The next section describes the language backgrounds of the speakers and learners involved in the Chikasha Academy program. Their life stories highlight how much has changed for the Chickasaw Nation and its language over the last eighty years.

1.4 Profiles of Speakers and Learners

This section provides short profiles of some of the speakers and learners currently involved in the Chikasha Academy. The following profiles show the nuanced diversity of how language shift individually impacts people's lives. Collectively, they further detail the history of the shifting Chickasaw language ecology while also attempting to de-essentialize and de-reduce the representation of language shift in Native communities by presenting individual lived experiences. Some of the profiles presented here are like those found in the work of Kari Chew (Lewis 2011, Chew 2016), who interviewed many of the same CLRP employees about their speaking and learning backgrounds. Chew (Lewis 2011) found in her interviews with Chickasaw

speakers that their main motivations for continuing to speak their language involved a pride inherited from their parents and grandparents about their language and identity and, above all, the eagerness of the younger generations to now learn the language. For learners, she found that their main motivation was also their family, feeling a desire to both strengthen connections with the older generation but also to ensure that future generations, especially their own children, know their language (Lewis 2011). During the interviews that I conducted for this research, all of the speakers and learners similarly expressed their great feelings of pride to be learning, teaching, speaking, and sharing their language.

Foshi' Taloowa' / Virginia Puller-Bolen was born in Ada, Oklahoma in 1940. Her family lived in Kullihoma and Lula, Oklahoma. She has eight siblings and three half-siblings, and she is the sixth child in her family. Her mother was Choctaw and was raised a speaker of that language, but she learned Chickasaw from her husband and his family. Virginia recalls that her whole family was bilingual in English and Chickasaw, but Chickasaw was spoken at home. She remembers that she already knew English when she began school in Lula. Virginia has lived her whole life in southeastern Oklahoma. Virginia loves to sing Choctaw hymns and is a member of the Chickasaw Language Committee.

Shawi' / Jerry Imotichey was born at the Indian hospital in Lawton, Oklahoma in 1938 and raised in Fillmore, Oklahoma. He recalls that his father wanted them all to learn English and tried to use mostly English in the home, but at the same time his parents would always speak Chickasaw with one another. He believes that his parents did not want them to not know Chickasaw, but rather they wanted to ensure that the

kids all knew English so they would do well in school. Jerry had six siblings, two older sisters and four younger siblings, one sister and three brothers. His oldest sister, Yvonne Alberson, taught Chickasaw in local schools and collaborated on creating learning materials (e.g. Alberson et al. 1995). He recalls that his younger sisters spoke Chickasaw when they were kids but that they stopped speaking later in life. He describes his younger brothers as understanding more than speaking even during childhood. Jerry credits his Chickasaw fluency to his neighbors and playmates being mostly Chickasaw families who also spoke the language. Jerry attended Fillmore elementary and graduated from Milburn high school. Additionally, the Imotichey family attended the Sandy Creek Presbyterian Church where Jerry's father preached and many church activities were conducted in Chickasaw. The church had three services every Sunday and often had week long retreats. Many other present-day Chickasaw speakers, including Hannah Pitman and Luther John, were among Jerry's neighbors, schoolmates, and fellow Sandy Creek churchgoers. Jerry spent his whole life in Oklahoma, living in Oklahoma City and Ada before returning back to Fillmore. Jerry was an employee of the CLRP, member of the Chickasaw Language Committee, and member of the Rosetta Stone Chickasaw language committee up until his passing in October 2016. He is dearly missed by everyone at the CLRP.

Biib / Rose Shields Jefferson was born in 1944 in Talihina, Oklahoma. She was raised around Johnson Chapel near Allen, Oklahoma where her grandparents lived. Her grandparents did not really speak English, Rose recalls translating for her grandmother when she was young. At her grandparents' house, everyone spoke Chickasaw. All of the church services and activities at Johnson Chapel were conducted in Chickasaw. Rose is

the oldest of her ten siblings, six sisters and four brothers, and many cousins. Rose describes herself and her brother as being speakers, but that her other siblings and cousins stopped speaking much as adults. Rose attended the grade schools at Citra and Gerty and her schoolmates and playmates were almost all Chickasaw, including fellow Academy speaker Stan Smith. Later her family moved to Boiling Springs and then near Tupelo, Oklahoma. Rose attended high school at the Haskell Indian School in Lawrence, Kansas where there were very few other Chickasaws. Rose moved briefly to San Jose, California through the Indian Relocation Program in the 1960s, but she disliked the big city and moved back to Oklahoma. Rose and her husband raised their three daughters in west Texas and after they retired, they moved back home to Ada, Oklahoma. Rose is a member of the Chickasaw Language Committee and of the Rosetta Stone Chickasaw language committee.

Punkin / Luther John was born in 1944 and raised by his maternal grandparents, the parents of his aunt Hannah Pitman, in Fillmore. He remembers his grandmother as speaking almost no English, but his grandfather and older cousins, who were more like older siblings, were all bilingual. He recalls that when other adults came over for Sunday dinners and visits, everything was done in Chickasaw. Luther and his family attended the Sandy Creek Presbyterian church where everyone spoke Chickasaw. Luther first learned English at Fillmore elementary school, which was about a half mile from where he lived and had several other Chickasaw students. At school, though, they were not allowed to speak Chickasaw. Luther graduated from Milburn High School. After high school, Luther moved to Los Angeles and attended the same church as speaker Mrs. Catherine Willmond. Luther has six children who all live in Oklahoma

and are interested in now learning the language. At church, Luther enjoys singing Choctaw hymns and praying in Chickasaw. He has two biological sisters who grew up in Los Angeles with his parents. He's a proud member of the Chickasaw Language Committee and Rosetta Stone language committee.

Ihoo Himitta' / Hannah John Pitman was born in Talihina, Oklahoma in 1943. She was raised in Fillmore, Oklahoma, the youngest child in her family. Both of her parents were native speakers of Chickasaw, and she recalls that her mother mostly spoke Chickasaw and only spoke English outside of the home, when she had to. Her father was a custodian at the local school and, because of his job, more familiar with English. Her siblings were all speakers, though most were grown up and out of the house when she was a child. Her nephew Luther John was raised with her like a brother. She had two older half-siblings in addition to two older brothers and an older sister. She, Luther, and all her siblings went to Fillmore elementary school and graduated Milburn high school. She recalls being asked not to speak Chickasaw at school, which pushed her to learn more English. The family attended services at Sandy Creek Presbyterian church, where many older people still spoke only Chickasaw. After high school, Hannah moved to California with her sister and brother-in-law who both also spoke Chickasaw. 35 years later, she moved back to Oklahoma and began teaching community classes at various towns across the Nation. At the time of writing, she's teaching weekly classes at Sulphur and Tishomingo. Hannah frequently talks about how much she loves teaching her language and how impressed she is with the learners in the Chikasha Academy. Hannah is also a member of the Chickasaw Language Committee.

Imo̲shi' / Stanley Smith was born and raised in Allen, Oklahoma in 1945. Stan is the oldest of his eleven siblings. He recalls that all of his siblings at one time spoke Chickasaw and that his parents mainly spoke Chickasaw. But unlike his other siblings, Stan was largely raised by his paternal grandparents, who spoke only Chickasaw. Stan recalls that he knew "very little" English before school and that he struggled with the language at first. Stan attended the local grade schools in Citra, Gerty, and Allen and then attended the Sequoyah School, a boarding school in Tahlequah, for high school. There he recalls that there was only one other Chickasaw who didn't speak the language and a few Choctaws that he could talk with. At boarding school, Stan recalls that he really began to learn English and that this is when he stopped speaking Chickasaw every single day. After graduating, Stan moved to California with the Indian Relocation Program in the 1960s, but he only stayed a couple of months before he got homesick and moved back. Stan was then drafted in 1968 and served in the U.S. military for two years, stationed in Germany. When he got married, Stan and his family moved to Ada in the 1970s and he has lived there ever since. Stan describes his wife and siblings as understanding Chickasaw but no longer willing or able to speak much. Stan worked for Chickasaw Nation at the hospital for fourteen years, before transferring to work with the history and culture program in the 1980s. Stan is a full-time employee of the CLRP, member of the Chickasaw Language Committee, and Rosetta Stone Chickasaw language committee.

Like most native speakers of Chickasaw today, the six speakers profiled here were born before the 1950s, are from a rural area, and were raised surrounded by Chickasaw speakers in their homes, churches, and communities. Exceptional

circumstances, though they may not have seemed like such at the time, shaped the daily lives of the speakers' childhoods, surrounding them with Chickasaw speakers in their homes and communities. The speakers attended many of the same schools and churches, and many are kin some way or another. The speakers in the Chikasha Academy have experienced huge changes in their speech community during their lifetimes. In their youth, Chickasaw was the language used with family and friends, the language of their home, playtime, church, and community life. English was the language of school and later the language of the workplace. During interviews, all of the speakers expressed how impressed they were with the learners of the Academy.

The next half of this section profiles the learners who joined the Chikasha Academy when it began in 2015. These profiles focus on their previous experiences with learning Chickasaw before beginning the Academy. The learners could be subdivided between those who had prior experience with the Master-Apprentice program and those who did not. Many of the learners also make use of the many other language learning resources provided by the CLRP, such as the grammar-focused language classes at East Central University (ECU) in Ada. The classes at ECU are taught using the grammar workbook, *Chikashshanompa' Kilanompoli': Let's Speak Chickasaw* (Munro and Willmond 2008). The learners are also actively involved in using their developing linguistic abilities to teach others.

Ofi' Ishto' / Jason Burwell is a new learner, who did not have previous immersion or classroom experience when he joined the Chikasha Academy. Jason grew up outside of the Chickasaw service area in Dallas, Texas. Jason's maternal grandfather was a speaker who married a non-speaker and did not use the language at home, so

neither Jason's mother nor any of her siblings speak or know the language. Jason describes himself as having "minimal experience" before beginning the Academy. He had started trying to learn what he could about two years prior, picking up words and phrases for his job at the Chickasaw Cultural Center by looking them up in one of the dictionaries (Humes and Humes 1973, Munro and Willmond 1994) or the prayer book (Chickasaw Language Committee et al. 2012). He tried to use what he learned every day in the tours he was giving at the cultural center. In 2015, when the Academy began, Jason was the first novice learner to join.

Itti' Okchamali' / Ric Greenwood is an experienced learner who had studied Chickasaw before beginning the Academy. Ric is from Ada, Oklahoma. His grandparents were speakers and he grew up knowing some basic words and phrases in Chickasaw. His grandmother, Geraldine Greenwood, was teaching Chickasaw at Mill Creek schools in the 1980s before the CLRP existed. He took part in the Master-Apprentice program before beginning the Academy, spending almost two years working with speaker Hannah Pitman. Ric also took the four Chickasaw language classes at ECU. Ric is usually in charge of leading the Academy sessions and spends time developing the curriculum that they follow in collaboration with the CLRP director. Ric joined the CLRP in 2012 and the Academy when it began in the fall of 2015.

Kowishto' / Clovis Hamilton is an experienced learner who had previously taken Chickasaw language classes before beginning the Academy. He is from Madill, Oklahoma and moved to Ada to go to school at East Central University. Clovis has great-grandparents who are remembered as speakers and he grew up with his family

knowing some words and phrases in Chickasaw. In 2004, he took the new Chickasaw community language classes in Ada, which were coordinated by Joshua Hinson. After graduating from East Central University in 2008, he began working for the Chickasaw Nation in Youth and Family Services, where he oversaw sports and cultural camps for youth. Motivated to include more language in the camps, Clovis become involved with the Department of Language and then applied to join the Master-Apprentice Program in 2010, which he participated in for about a year, working with speaker Stanley Smith. Clovis began taking the grammar-focused Chickasaw language classes at ECU at that time, completing all four semesters. Clovis has been working full time for the CLRP since 2011 and he began the Academy as an experienced learner in the fall of 2015. He recently graduated with his Master's degree from ECU.

Lokosh / Joshua D. Hinson is the director of the CLRP and the most experienced and advanced language learner of Chickasaw. Joshua grew up outside of the Chickasaw service area in Texas. His maternal great-grandmother, Charlie Perkins Cox, was a speaker who went to the Bloomfield Academy. Her daughter, Faye Elizabeth Cox Nichols, Joshua's grandmother, gave him a copy of the Humes' dictionary when he was a kid, which started his interest in learning the language. He has often talked about how the birth of his first child, Chokfi' / Levi Hinson in 2001, when he was just about to graduate from college, greatly intensified his commitment to his language. His M.A. is in art history and his thesis focused on Chickasaw stickball sticks, so while living in New Mexico he made regular summer visits back to Oklahoma and began hanging out with speakers. After graduating in 2004, Joshua moved back to Oklahoma and worked with Chickasaw museums and with developing the Chickasaw Cultural Center. Once in

Oklahoma, he worked constantly to learn the language, facilitating community classes with speaker Pauline Brown. In 2007, he took on the role of both administering and participating in the new Master-Apprentice program in the new Department of Chickasaw Language. In 2009, when the Nation restructured the department, Joshua became director of both the Department and the CLRP. In 2009-11, he taught the high school Chickasaw classes at Byng High School in Byng, Oklahoma. He is ABD on his doctoral degree at the University of Oklahoma. His Interdisciplinary Studies degree will be in Native Language Revitalization.

Ọsi' Tohbi' / Brandon White Eagle is an experienced learner with the highest level of proficiency after Joshua Hinson. Brandon is from Wapanucka, Oklahoma and he grew up outside of the Chickasaw Nation service area in southern Oklahoma. His great-grandmother Marie Gipson is remembered as a speaker of the language. He joined the Department of Language in 2011. He was an apprentice in the Master-Apprentice program for over two years, working with speaker Weldon Fulsom. In 2013-14, he took the four semester course in Chickasaw language at East Central University. Brandon now teaches these classes at ECU. Brandon has been working full time for the CLRP since 2011 and he began the Academy as an experienced learner in the fall of 2015.

1.5 Organization of the Dissertation

This chapter has focused on Chickasaw language ecology and language revitalization. Changes in a language's ecology can force language change and language shift. After defining key concepts in language endangerment abstractly, the description of diachronic changes in Chickasaw language ecology demonstrates how processes of shift have progressed within a single community. From an ecological framework, many

Native American communities, including Chickasaw, have been pressured to adapt their language use, via bilingualism and language shift, in order to survive in a new English dominant language ecology (Mufwene 2004). For indigenous communities around the world, the history of language shift is closely tied to large ecological changes, including the appropriation and destruction of indigenous lands, forced assimilation, and contested sovereignty (Hinton 2001a).

For Chickasaws, the nineteenth century was marked by forced relocations and the temporary dissolution of their sovereignty; the early twentieth century saw forced assimilation via boarding schools and other intentionally detrimental policies; and the mid-twentieth century involved an insidious devalorization of the Chickasaw language as English language use overtook nearly all domains and capitals. Several processes of diaspora, including removal, allotment, and relocation, scattered and fractured the community, inviting English and other languages in. A complex interplay of external and internal factors has pushed Chickasaw language shift and change. The previous section's profiles of speakers and learners highlights the huge changes in Chickasaw language ecology over the last eighty years, particularly the recent, more positive, changes of the last ten years since the establishment of the CLRP. The encouraging changes in Chickasaw language ecology, in particular the increase in positive language ideologies (Davis 2013, Ozbolt 2014) and increase in socioeconomic capital (Davis 2013), are pushing back against language shift and its many underlying and related factors.

Chapter 2 presents a succinct grammar sketch of Chickasaw, focusing on the aspects of the language that are most pertinent to the later analysis of the Chikasha

Academy learner data. The sketch of Chickasaw essentially summarizes the published descriptive literature with a focus on morphology and morphosyntax, with fuller descriptions devoted to the morphological features that will be focused on during the analysis. However, the speakers involved in the Chikasha Academy speak with regular variations that often have not been mentioned in the literature. Part of Chapter 2 describes some of the native speaker variation observed in the recordings of the Chikasha Academy sessions. As described in this chapter's section on learner profiles, the leaners in the Academy have access to the descriptive literature and have taken classes that teach from these materials. But, most of their input comes from the speech of the speakers involved in the Academy, so a description of their variations is important in this analysis.

Chapter 3 reviews the literature on language change and language acquisition with a focus on the unique context of language revitalization. I discuss the processes of language change and how language change is framed in language revitalization work. Then I discuss how the unique needs of endangered languages distinguish them from other kinds of language acquisition research (Hinton 2011).

Chapter 4 outlines the research methods used in this dissertation. All of the sessions of the Chikasha Academy were recorded by the CLRP and I was given access to those recordings. The site where recordings take place is described, in addition to the general structure of sessions in the Academy. All recordings were transcribed using the program SayMore and analyzed using the Fieldworks Language Explorer (FLEx) program. The workflows and decisions about workflows using these programs are detailed in this chapter.

Chapter 5 details the results of the data analysis, which focuses on describing and analyzing the speech of the learners in the Chikasha Academy. The analysis details what the learners have learned, in terms of Chickasaw morphosyntax and discourse structures, after the first year of the Chikasha Academy. The learners are at different levels of proficiency when they began the Academy, because all of the learners except Ofi' Ishto' had significant previous experience through the Master-Apprentice program and language classes. The analysis focuses on the order that the learners follow as they learn Chickasaw morphology and morphosyntax. Chapter 6 summarizes the results of the research, detailing how the results may be useful to the CLRP and to other language revitalization programs that are using similar adult immersion methods, in addition to discussing future work.

Chapter Two: Chikashshanompa'

The Chickasaw language, or Chikashshanompa', is a Muskogean language spoken today in south central and southeastern Oklahoma. Chickasaw is critically endangered, with less than fifty first language speakers of the language, all bilingual and over the age of sixty. This chapter details a short grammatical sketch of the language, focusing on morphology and morphosyntax, and based almost entirely on the work of Pam Munro and Catherine Willmond. Additionally, this chapter describes some of the variation in morphology and morphosyntax observed in the speech of the native speakers involved in the Chikasha Academy program. Some of this variation has been mentioned in the descriptive literature, but some has not.

The Muskogean language family was originally located in southeastern North America but today the tribes are spread across the eastern, southern, and central United States. The Muskogean language family includes Mvskoke/Muscogee Creek (~3,000 speakers), Seminole (~900 speakers), Alabama (~250 speakers), Koasati/Coushatta/Quassarte (~200 speakers), Apalachee (no longer spoken), Mikasuki (~200 speakers), Hitchiti (no longer spoken), Choctaw (over 10,000 speakers), and Chickasaw (~50 speakers) (Mithun 1999, Golla 2007, Martin 2011). While older works have described the closely related Chickasaw and Choctaw as mutually intelligible dialects (Gatschet 1884, Haas 1941, Pulte 1975), there are notable differences in their phonology, morphology, lexicon, and morphosyntax (Munro 1987) and today they are recognized as separate languages (Munro 2000, 2005). No one has ever done a true intelligibility test, but speakers self-report varying levels of understanding and unintelligibility (Munro 1987, 2005). Many Chickasaw speakers are familiar with

Choctaw because of kin relations and their regular use of Choctaw translations of hymns and Bible passages, since none traditionally existed for Chickasaw. But many speakers are sensitive to and even reject linguistic elements that they consider to be Choctaw rather than Chickasaw.

Chickasaw is an under-documented and under-described language, and has less descriptive work than the closely related Choctaw language. However, linguist Pam Munro in collaboration with native speaker Catherine Willmond has been publishing descriptive work on the language for over three decades. Their work includes a dictionary that contains a grammar sketch (Munro and Willmond 1994), a grammar workbook designed for adult learners (Munro and Willmond 2008), and numerous articles and book chapters that focus on morphosyntax (Munro and Gordon 1982, Munro 1983, 1987, 1998, 1999, 2000, 2005, 2006), phonetics and phonology (Munro and Ulrich 1984, Gordon et al. 2000, 2001, Gordon and Munro 2007), and linguistic typologies (Munro and Gordon 1982, Munro 1988, 2000, 2011). Prior to their work, Chickasaw was probably the least described of all the Muskogean languages (Pulte 1975).

The first four sections (2.1-2.4) of this chapter summarize the descriptive literature on Chickasaw into a succinct sketch. The sketch is in no way exhaustive, but rather focuses on the elements most pertinent to the later discussion of the learner data in Chapter 5. The last section (2.5) describes native speaker variation in relation to the variety of Chickasaw that has been described in the literature. The variation is described because it is prevalent throughout the data of the Chikasha Academy sessions. I also discuss possible sources for the variation, but it is not the focus of this dissertation to

disentangle what is likely a fascinating combination of changes due to language attrition, partial acquisition, and natural language change (although someone should write that dissertation).

2.1 Orthography and Phonology

Chickasaw Nation has no single standard writing system and instead employs two orthographies. The first orthography is used and created by native speakers, who each use their own unique way of writing their language. The first dictionary of Chickasaw was written by two native speakers using their own orthography (Humes and Humes 1973, edited and reprinted in 2015). The other orthography was designed by linguist Pam Munro and native speaker Catherine Willmond (1994), and that is the writing system used throughout this dissertation[1]. This orthography is regular and most symbols have the expected phonetic value.

Chickasaw has three vowels, [a], [i], and [o], which may occur as short, long, or nasal. Short vowels are lax and can vary in their pronunciation, while nasal and long vowels are most often pronounced like cardinal vowels (Munro 2005). Nasal vowels are written with an underline: <a̲, i̲, o̲>. Long vowels are written double: <aa, ii, oo>. Accented vowels are written with either an acute accent (e.g. <á>) or a grave accent (e.g. <â>). Acute accented syllables have high pitch and are generally more prominent in the word. Grave accent syllables have a falling pitch. Accent can be either lexically marked or grammatically produced (Munro 2005). Chickasaw is a pitch-accent

[1] I use the Munro and Willmond orthography, except in the spelling of "Chikasha" in the name of the Chikasha Academy. In the Munro and Willmond orthography, the word for Chickasaw is spelled *Chikashsha*, accurately reflecting the gemination and lack of rhythmic lengthening in this word. But most of the speakers involved with the Academy, and many other community members, prefer the spelling *Chikasha* and that is the one used by the program and so also in this dissertation.

language with word-level stress usually occurring on the final syllable. The vowels <e> and <u> may occur in recent English loanwords (e.g. *cheli'* for 'jelly').

Chickasaw has sixteen native consonants: [p, t, k, ʔ, b, č, f, s, š, h, ł, m, n, l, w, y]. Geminate consonants are written double, e.g. <mm> and <pp>. [j] is represented with <y>. Digraphs are used to represent the fricatives: [č] as <ch>, [š] as <sh>, and [ł] as <lh>. The only small change that I have made in the orthography is in the Unicode character used to represent the glottal stop [ʔ], usually represented by some form of an apostrophe. Instead of the apostrophe (for which there are multiple Unicode symbols), I use the Saltillo <ꞌ> (Unicode: U+a78c) because it maintains a constant representation across fonts. Some other consonants may be used in writing recent English loanwords: <d, g, j, r, v, z> (e.g. *jeli'* for 'jelly').

Chickasaw has several regular phonological rules that have been well detailed (Munro and Willmond 1994). I will not describe all of these rules here, but I will briefly outline a few that will be a part of the discussion of learner data in Chapter 5. The most pervasive rule is referred to as rhythmic lengthening (Munro and Ulrich 1984), which is a process that phonetically lengthens alternating open syllables. More specifically, the lengthened syllables must be light, open, not word-final, and in specific morphological domains (see Munro 2005 or Munro and Willmond 1994 for detailed description). For example, the word *pisa* 'see' consists of two light open syllables, neither of which are lengthened because the second light open syllable is word-final. But affixes can be attached to *pisa* and create words that trigger rhythmic lengthening: *pisali* 'I see it,' where '*sa'* is lengthened, and *sapisa,* 'he sees me' where '*pi*' is lengthened. Certain affixes never trigger rhythmic lengthening, for example *pisakạ* 'that I see it' has no

lengthened syllables (Munro 2005). Since this is a regular and pervasive rule, lengthened vowels are not marked in the Munro and Willmond orthography. The focus of this dissertation is on morphology and morphosyntax, but learner variation in rhythmic lengthening is discussed in the data when a speaker specifically remarks on this feature of pronunciation.

The following phonological rules do affect how words are represented in the orthography and are discussed in Chapter 5. Some of these rules are rather complex and can be more fully understood by referring to other descriptions (Munro and Willmond 1994, 2008, Munro 2005). Short vowels always delete before a suffixed vowel (e.g. *pisa-a'chi* becomes *pisa'chi* 'he will see it'). [š] always assimilates to [s] (e.g. *ish-sa-pisa* becomes *issapisa* 'you see me'). Certain verbs that end with '*li*' delete this syllable when a suffix beginning with [t, č, n] is attached and the '*li*' is not rhythmically lengthened (e.g. *bohli-tok* becomes *bohtok* 'he put it down'). Certain verbs that end with a strident-coronal consonant [č, s, š, ɬ] followed by a short vowel delete the vowel when a suffix beginning with [t, n, l, č] is attached and the vowel is not rhythmically lengthened (e.g *pi̲sa-tok* becomes *pi̲stok* 'he looked at it'). The previous rule produces some consonant clusters involving [č], but Chickasaw does not allow such clusters and so another phonological rule changes these to [š] (e.g. *hilhachi-tok* becomes *hilhashtok* 'he was made to dance,' not **hilhachtok*; *ayokpánchi-li* becomes *ayokpa̲shli* 'I like it,' rather than **ayokpánchli*). Generally, when a vowel-final prefix attaches to a vowel-initial word, there is no change if either of the vowels is long. But if the prefix vowel is short, then short word-initial <i> will disappear (e.g. *sa-ishki'* becomes *sashki'* 'my mohter'). Native speaker variation in applying these rules is discussed in section 2.5.

2.2 Noun Morphology

There is no minimally required inflection or derivation for most nouns in Chickasaw. In other words, most nouns in Chickasaw can consist of a 'bare' form with no other added affixes. Nouns in Chickasaw can be either singular or plural; number is only indicated by the verb. Thus *ofi'* means 'dog' or 'dogs,' *hattak* means 'man' or 'men,' etc. Additionally, Chickasaw does not mark definiteness on nouns, so *ofi'* can mean 'the dog(s)' or 'a dog' or 'some dogs,' etc. Nouns in Chickasaw can be inflected for possession and case. Nouns can also be derived from verbs and nouns can be created by compounding. Verbal morphology, discussed in the next section, is much more complex, as often found in Native North American languages.

2.2.1 Possession

Possession is marked on nouns using one of two agreement affix sets, referred to by roman numerals (II and III). These affix sets, in addition to a I affix set[2], also appear on verbs and are thus discussed further in the next section. Which affix set a noun uses to indicate possession depends on whether the noun is alienably or inalienably possessed. Alienable possession refers to nouns that can exist freely, without being owned by anyone or anything. Inalienable possession refers to nouns that cannot exist freely and are always thought of as being owned (or 'possessed') by someone or something. For example, *ofi'* 'dog' and *hattak* 'man' are alienable nouns, because they can exist unowned. To indicate ownership (possession) of these nouns, a III prefix,

[2] Three nouns (of the ~4,100 listed in the Munro and Willmond 1994 dictionary) use set I affixes for possession, because they are recently nominalized verbs. As verbs, these nouns use set I affixes to indicate subjects. Since set I affixes are almost exclusively used on verbs, they are described in the next section on verbal morphology and the three exceptional and rarely used nouns are not described here.

combined with the dative prefix *im-*[3], is required. Because the III prefixes always occur combined with the dative *im-*, they are presented in their fused surface forms as III-dative prefixes. The majority of nouns in Chickasaw are alienable and indicate possession with a III-dative prefix, listed and exemplified in Figure 1.

	1.SG	2.SG	3	1.PL	2.PL
III	*am-*	*chim-*	*im-*	*pom-*	*hachim-*
	amofi'	*chimofi'*	*imofi'*	*pomofi'*	*hachimofi'*
	'my dog(s)'	'your dog(s)'	'his/her/their dog(s)'	'our dog(s)'	'y'all's dog(s)'

Figure 1. Chickasaw III-dative agreement prefixes with examples

The III-dative prefixes have regular allomorphy. They occur as presented above only in front of a vowel or the consonants <b> and <p>. The <m> of these prefixes becomes <n> before <t, ch, k> (e.g. *an-kowi'* 'my cat') and <m> plus the vowel reduces to a nasal vowel before all other consonants (e.g. *chi̲-holisso* 'your book'). Identical allomorphy occurs when these prefixes are used on verbs.

A small number[4] of nouns are considered inalienably possessed and use set II prefixes to indicate possession. Most inalienable nouns refer to family members or body parts. Set II agreement prefixes are listed and exemplified in Figure 2.

	1.SG	2.SG	3	1.PL	2.PL
II	*sa-*	*chi-*	*ø*	*po-*	*hachi-*
	sashki'	*chishki'*	*ishki'*	*poshki'*	*hachishki'*
	'my mother'	'your mother'	'his/her/their mother(s)'	'our mother(s)'	'y'all's mother(s)'

Figure 2. Chickasaw II agreement prefixes with examples[5]

[3] The dative *im-* occurs on nouns only as part of the III-dative prefixes to indicate possession. But dative *im-* frequently occurs on verbs and is further described in sections 2.2.2 and 2.2.3.
[4] Of the ~4,100 nouns listed in the Munro and Willmond (1994) dictionary, less than 200 use set II prefixes for possession.
[5] Recall from the previous section that words that begin with short <i> drop this vowel when a short vowel-final prefix attaches.

Because inalienable possession implies an inextricable relationship between the noun and something or someone else, these nouns are considered always possessed, even when they are bare. Notice that there is no third person ('his, 'hers', 'theirs,' or 'its') set II prefix, indicated by the null marker, ø. Null marking means that this concept is indicated by the lack of any affix, rather than the appearance of a specific affix. The small number of nouns that use set II prefixes, when unmarked, are considered possessed by a third person argument. Consider various translations of (1). All set II nouns can be similarly translated when unmarked.

(1) *ishki'* 'his mother(s),' 'her mother(s),' 'their mother(s),' 'its mother(s)'

However, not all kinship terms use set II possession. There are many exceptions that appear to be connected to the Chickasaws' traditional matrilineal clan system. Such nouns use III-dative prefixes for possession, but they must always be marked for possession. For example, *inki'* 'father,' *inko'si'* 'paternal uncle,' *imo̲shi'* 'maternal uncle,' *intiik* 'sister,' *i̲nakfi'* brother,' and others referring to paternal or male relatives (compared with set II *ishki'* 'mother,' *ishko'si'* 'aunt,' and *ippo'si'* 'grandmother').

When set II prefixes attach to a word that begins with a vowel, regular allomorphy occurs (Munro and Willmond 1994, 2008, Munro 2000, 2005). If the word begins with a short <i>, that vowel is lost after the II prefix (e.g. *sa-shki'*), as is any word-initial short <i> when a short vowel-final prefix attaches. If the word begins with <a>, the II prefix is infixed on the word after the initial <a> (e.g. *aktampi'* 'armpit' to *a-sa-ktampi'* 'my armpit,' *a-chi-ktampi'* 'your armpit,' etc.). If the word begins with <o>, an initial <a> is added to the II prefix and a regular phonological rule deletes the vowel

before <o> (e.g. *oshi'* 'son' to *as-oshi'* 'my son,' *ach-oshi'* 'your son')[6]. Native speaker variation with set II prefixes is discussed in section 2.5.

To indicate possession using a possessor noun, that is to indicate that one noun possesses another, a specific construction is used. The possessor noun is always unmarked and precedes the appropriately marked possessed noun, as in (2) and (3).

(2) *hattak* ***im****ofi'* 'the man's dog'

(3) *hattak ishki'* 'the man's mother'

ofi' is a III-dative noun, marked with third person *im-*, while *ishki'* is a set II noun, and thus unmarked for third person. The agreement prefixes are the only inflectional prefixes that can occur on Chickasaw nouns. Case and derivation are marked with suffixes.

2.2.2 Case and Word Order

Case marking indicates how a noun functions in a sentence, either as the subject (nominative) or as the object (accusative) in Chickasaw. Case is closely tied to verbs in Chickasaw, since the verb determines whether it allows subjects and/or objects. Verb morphology is discussed in the next section, but examples in this section will include bare verb forms, which in Chickasaw indicate third person arguments and present or an immediate past tense (referring to the same day). (4) shows a sentence with subject noun *hattak* marked nominative, and object noun *ofi'* marked accusative.

(4) *hattak****at*** *ofi'****a*** *pisa*. 'The man sees a dog.'

[6] Munro (1993) explains the historical basis for what seems like an overly complicated process. She posits a synchronic analysis that Chickasaw infixes the II prefixes after word-initial <a> and that <o>-initial words have an underlying <a>, from a non-productive derivational prefix *a-*.

The general nominative suffix is *-at* and accusative is *-a̲*. The basic word order of Chickasaw sentences is SOV (subject, object, then verb), as in (4). But with case-marking, which designates the role of each noun, nouns can move to other positions in the sentence, as in (5) with SVO order and (6) with OVS order. Most commonly, nouns are moved after the verb as afterthoughts or for emphasis (Munro 2005). Other configurations are possible, but rare (Munro and Willmond 2008). Additionally, an unmarked noun following a case-marked noun can serve as a nominal predicate, which means the verb 'be' is implied in such a structure, as in (7).

(5) *hattak**at** pisa ofi'**a̲**.* 'The man sees a dog.' or 'The man sees it, a dog.'

(6) *ofi'**a̲** pisa hattak**at**.* 'The man sees a dog.' or 'He saw a dog, the man (did).'

(7) *hattak**at** alikchi'.* 'The man (is) a doctor.'

If there are two object nouns, as there are with some verbs, then the noun closest to the verb is unmarked while the other must be marked accusative.

In descriptions of Chickasaw, earlier publications described the accusative case marker *-a̲* as optional but often used (Scott 1981), but recent publications note that the accusative marker is not only optional but rare, and that unsuffixed object nouns occur frequently when in the basic word order of SOV (Munro and Willmond 2008, Munro 2005, 2016). If a noun is moved out of basic word order, as shown in (5) and (6), then case-marking is required (Munro and Willmond 2008, Munro 2005).

In addition to the basic nominative *-at* and accusative *-a̲*, Chickasaw has other sets of case markers that combine case with other functions. Contrastive suffixes *-akoot* and *-ako̲* are used to contrastively emphasize or specify a particular noun, as in (8). Focus suffixes *-hoot* and *-ho̲* are used to draw attention to the identification of a noun,

as in (9). The interrogative focus suffixes *-haat* and *-hto* are used to create a question focused on a noun, as in (10). All nominative case markers end with *-t* while all accusative case markers end with a nasal vowel, and the initial <h> of the focus suffixes will drop if the word ends in a consonant.

(8) *Hattakat ofi'**akǫ** pisa*. 'The man sees a dog.' (not something else)

(9) *Ofi'**ǫ** pisa*. 'What he sees is a dog.' (introducing this information)

(10) *Ofi'**hto** pisa?* 'Is it a dog he sees?' (specifically questioning what he sees)

The focus case markers also fulfill another function. This set is used to incorporate descriptive verbs into a noun phrase, as in *ofi' tohbi-hǫ pisa* 'he sees a white dog' or *ofi' oshta-hǫ pisa* 'he sees four dogs.' Speaker variation with case-marking is discussed in section 2.5.

Nouns may also be marked with other suffixes that replace any of the case markers. One such suffix is described as possibly another type of case marker, although its use is not well understood (Munro 2005). The meaning of the suffix *-ak* is unclear[7], but it is only used on objects and often found on locational objects or on an object noun following a subject noun marked for focus with *-akoot* (Munro and Willmond 2008). Though, there are no contrastive or interrogative versions of *-ak*. The suffix *-akookya* (or *-akya*) translates as 'too' (e.g. *ishki'-akookya ofi' pisa* 'his mom sees the dog, too') and *-hookano* is a strong topic marker, which means it marks the noun as important to the topic of conversation (Munro and Willmond 2008). Lastly, *-aash* marks an aforementioned noun and can occur alone or with the focus case markers *-hoot*/*-hǫ* (e.g. *hattak-aash kowi' pisa*, 'the (aforementioned) man sees the cat').

[7] It might be an "oblique" case marker (Munro and Willmond 1994, Munro 2016), but it might not (Munro and Gordon 1982).

2.2.3 Derivation

Nouns can be created from verbs by adding the nominalizing suffix *-′* to a verb. The resulting noun refers to either the doer of the verb or the result of the verb. For example, the verb *hilha* ‘dance’ can be nominalized to *hilha′* and mean either ‘a dancer’ or ‘a dance’ (Munro and Willmond 2008). Many compound nouns are formed by combining a noun, a verb, and the nominalizing suffix *-′*. For example, *holisso* ‘book’ combines with *pisa* ‘see’ to create *holisso-pisa′*, which literally means ‘someone who looks at books’ and translates as ‘a student.’ This method of compounding is quite productive and new words can be created and understood freely (Munro and Willmond 2008). Nouns can also be created by combining two nouns together, also a productive process. The noun *oshi′*, which means ‘son,’ is often used to create a compound referring to something that is a smaller version or part of the other noun. For example, *bashpo* ‘knife’ and *oshi′* combine to form *bashposhi′* ‘pocket knife’ and *ilbak* ‘hand’ and *oshi′* combine to form *ilbak-oshi′* ‘finger.’ Nouns created from compounds function fully as a noun and can take all previously described inflectional morphology.

2.2.4 Phrase Structure

When multiple nouns are used together, they form a noun phrase. For example, *hattak imofi′* ‘the man’s dog’ is a noun phrase. The previously mentioned case suffixes can occur on the last noun in a noun phrase to encompass the entire phrase, shown in (11) with nominative *-at*.

(11) *hattak imofi′**at** pisa.* ‘The man’s dog sees it/them.’

Complex noun phrases can be constructed using case, possession, and derivation, as in (12). Demonstratives, like *yamma* ‘that,’ can follow a noun phrase.

Lastly, adjectival and/or quantifier modifiers, like *losa* ‘black’ and *toklo* ‘two’ (which are actually verbs), can be used in noun phrases. Notice that all modifiers follow the noun.

(12)[8] *hattak imofi' losa toklo yammat kowi'a pisa*.
hattak im-ofi' losa toklo yamm- at kowi'-a pisa
man DAT-dog black two DIST.DEM-NOM cat- ACC see
‘Those two black dogs of the man see a cat.’

Notice that all modifiers follow the noun. (12) shows a noun phrase containing all possible parts in Chickasaw, containing a possessor, a possessed head noun, two modifiers, and a demonstrative (Munro 2000).

Chickasaw has free-standing pronouns that can be used to indicate emphasis (e.g *ishno'* ‘you’), but they are used rarely. When a pronoun occurs in a sentence, it has to be appropriately case-marked and/or in the appropriate word order (Munro and Willmond 2008). Thus a non-case-marked pronoun can only occur if it is the object and it is appearing directly to the left of the verb, because accusative case-marking is only optional when an object is in basic word order. However, even with a pronoun, the verb must still be marked with the appropriate verbal agreement morphology for subjects and/or objects. Verb morphology is described in the next section.

2.3 Verb Morphology

Chickasaw verbs are complex, with often a single verb translating to a whole sentence in English. Chickasaw verbs can have many inflectional affixes, which can

[8] (12) also illustrates how the majority of the data is presented in this dissertation. The first line contains the complete form (word or sentence) in Chickasaw; the second line divides the first line into morphemes; the third line provides a gloss for each morpheme; and the fourth line gives a full English translation. When data is presented differently, as in (1) - (11), the second and third lines are omitted and only the Chickasaw utterance with an English translation is provided.

create long and complicated verb words. However, there is no obligatory verbal inflection in Chickasaw, which means that a bare verb (one with no affixes) can be used as a word and often as a full sentence. A bare verb in Chickasaw indicates a third person ('he,' 'she,' 'it,' or 'they') subject and the non-past tense (referring to the present or immediate past, e.g. the same day). (13) and (14) show bare verbs with their multiple possible translations.

(13) *Anompoli*. 'She's/He's/They're talking.' or 'He/she/they talked (recently).'

(14) *Tikahbi*. 'She's/He's/They're tired.' or 'He/she/they were tired (recently).'

For each of these sentences, the specifics of the third person subject and tense would be understood from context. An optional third person plural subject prefix *hoo-* can be added (e.g. *hoo-anompoli* can only mean 'They're talking / They talked (recently).'). A bare verb can also be used as a command form (e.g. *anompoli!* 'talk!'). To refer to first persons ('I' and 'we') or second persons ('you' and 'you all'), the verb must have inflectional morphology to indicate agreement.

2.3.1 Agreement (I and II)

The Chickasaw agreement system is one of the most difficult aspects of the language to succinctly and accurately describe, because historical changes have rendered what was once a predictable system into one that has a great number of exceptions. In other words, predicting what agreement markers a verb will take is often not possible. In this section, I will first describe the agreement system at its most conservative, when it is fairly predictable, beginning with the I and II agreement sets. Then I will discuss the many exceptions involving unpredictable I and II agreement. Section 2.3.3 then describes the processes that were and are behind the changes in the

system involving another set of agreement markers, the III-dative agreement, and the resulting exceptions. Native speaker variation in using agreement affixes is discussed in section 2.5.

Chickasaw has two main sets of pronominal agreement affixes, which means there are two different ways to say 'I,' 'we,' 'you,' etc. The pronominal affix sets are referred to with Roman numerals I and II (Munro and Gordon 1982) and summarized in Figure 3 below. Notice that there is only one suffix in the system. The allomorphs of the set I first person plural ('we') prefix occur based on the initial sound of the verb: *il-* occurs before vowels and *ii-* occurs before consonants. The Set II prefixes are also used to mark possession on some nouns (described in section 2.2.1).

	1.SG	2.SG	1.PL	2.PL
I	*-li*	*ish-*	*il-/ii-*	*hash-*
II	*sa-*	*chi-*	*po-*	*hachi-*

Figure 3. Chickasaw I and II agreement affixes

The choice of agreement affix set depends on the type of verb, with most verbs only using one set. (15) and (16) show how each set can mark the subject of an intransitive verb (verbs that only have one argument, the subject). (Note that while all verbs unmarked for tense can translate as either present or immediate past, in this dissertation, for the sake of space, the rest of the verbs unmarked for tense will be translated only once, as best fits the context).

(15) *Anompoli**li***. 'I'm talking.'
***Ish**anompoli*. 'You're talking.'
***Il**anompoli*. 'We're talking.'
***Hash**anompoli*. 'Y'all are talking.'

(16) *A**sa**bika*. 'I'm sick.'
*A**chi**bika*. 'You're sick.'
*A**po**bika*. 'We're sick.'
*A**chi**bika*. 'Y'all are sick.'

Set I affixes are used to mark active intransitive verbs, as in (15), and Set II affixes mark non-active intransitive verbs, as in (16). No agreement marking is used to mark third person. As mentioned, the set II affix allomorphy that occurs with nouns (section 2.2.1) [9] is identical with verbs, as seen in (16). If both I and II prefixes occur on the verb, then the added <a> before a verb stem beginning with <a> or <o> disappears (e.g. *apila* 'help,' *is-sa-pila* 'you help me'). Additionally, the first syllable of *hachi-* is only present at the beginning of a word and deletes if any other prefix precedes it. Thus *chi-* is always used after a I prefix or with a verb stem beginning with <o> or <a>, as seen in (16), and speakers know whether *chi-* is singular or plural from context (compare with *hachi-tikahbi* 'y'all are tired'). Speaker variation involving set II allomorphy is discussed in section 2.5.

Transitive verbs (verbs that have more than one argument, usually subject and object) work differently. With most transitive verbs, the I affix refers to the subject and the II affix refers to the object, as in (17) and (18).

(17) *Chipisali*.
chi- pisa- **li**
2SG.II- see- **1SG.I**
'I see you.'

(18) *Issapisa.*
ish- **sa-** pisa
2SG.I- **1SG.II-** see
'You see me.'

[9] The set II prefix allomorphy with vowel-initial words described in section 2.2.1 for nouns is identical when set II prefixes occur with vowel-initial verbs. Word-initial <i> is dropped when any set II prefix attaches (e.g. *ishto* 'be big,' *sa-shto* 'I'm big'), while the prefix vowel is dropped for word-initial <a> or <o> and an <a> is added to the beginning of the prefix (e.g. *ayoppa* 'be happy,' *a-chi-yoppa* 'you're happy' and *oshkabali* 'be bald,' *a-ch-oshkabali* 'you're bald').

Notice that if both I and II prefixes appear on the same verb, I occurs before II. In Chickasaw, I affixes always refer to subjects, as in (15), (17), and (18). But set II affixes can refer to either the subject, as in (16) and (19), or the object, as in (17), (18), and (20), depending on whether or not the verb is considered 'active'.

(19) *Asabika.*
sa- abika
1SG.II- be.sick
'I'm sick.'

(20) *Sapisa.*
sa- pisa
1SG.II- see
'He/she/they see me.'

Chickasaw's agreement system is often referred to as an active inflection system, also called a split-intransitive system (Munro and Willmond 1994). In such systems, one set of affixes indicates the subject of transitive verbs and of some intransitive verbs, like set I, while another set of affixes indicates the object of transitive verbs and the subject of some intransitive verbs, like set II (Mithun 1991). Active inflection systems are semantically motivated by some factor, such as volition, control, performativity, affectedness, or a combination of factors (Mithun 1991). The Chickasaw system is underlyingly motivated by control, referring to whether or not the argument purposefully controls the action of the verb (Munro 2016, Mithun 1991). In active inflection, control is often difficult to distinguish from volition, referring to whether or not the argument intends the action of the verb (Mithun 1991).

Semantically, the set I affixes often refer to the argument that is controlling the action, like the subjects in (15), (17), and (18). Meanwhile, the set II affixes refer to an argument that is not controlling the action, but rather is being affected involuntarily by

the action, like the subjects in (16) and (19) and the objects in (16), (18), and (20). Because set I arguments are considered more 'actively' involved, they are referred to as 'active' participants while set II arguments are 'non-active.' Consider (21) - (24) as further evidence of the underlying semantics of control in the Chickasaw active inflection system.

(21) ***Sa****nosi*. 'I fell asleep (not on purpose, I didn't mean to).' [II]

(22) *Nosi****li***. 'I went to sleep (on purpose, I decided to go to sleep).' [I]

(23) **As***okmiloli*. 'My eyes are open wide (they just are, I have bug-eyes).' [II]

(24) *Okmiloli****li***. 'My eyes are open wide (on purpose, I'm widening them).' [I]

Some active inflection systems (called fluid-S languages) have a large number of verbs that can take either active or non-active inflection, depending on whether the verb was done intentionally or unintentionally (Mithun 1991). But in Chickasaw, only a small number[10] of verbs can use either agreement set, depending on whether the verb was done purposefully. All such fluid verbs in Chickasaw refer to functions of one's own body[11]. Most verbs can only ever use one pronominal agreement set to indicate the subject, regardless of whether or not the subject purposefully performed the action (Munro 2005). For this reason, the Chickasaw agreement system is described as being lexically determined (Munro 2016), which means that most verbs have predetermined agreement that speakers know to use with each verb. For example, most verbs describing states of emotion use II agreement in Chickasaw, regardless of whether the

[10] Of the ~2,500 verbs in the Munro and Willmond dictionary (1994), less than 50 are listed as being able to use either I or II inflection (both numbers include derived stems).

[11] While many bodily functions can take either agreement (e.g. 'sneeze,' 'vomit,' 'burp,' 'cough'), suggesting that these may sometimes be done purposefully and sometimes not, some other bodily function verbs can only use II agreement, for example 'sweat,' 'choke,' and 'have dandruff,' which do seem less likely to be done purposefully.

subject considers the feeling to be controlled (e.g. *ayoppa* ‘be happy,’ *nokhánglo* ‘be sad,’ *hashaa* ‘be angry,’ etc.), perhaps suggesting that many emotions are considered inherently uncontrolled by the experiencer. Thus for many Chickasaw verbs, understanding the semantics of each verb in its most usual usage can predict the choice of agreement affix set.

However, while the underlying semantic motivation of control explains most verbs, many verbs cannot be easily explained or predicted by semantic analysis alone (Munro and Gordon 1982). Intransitive quantifier verbs would seem non-active (e.g. *toklo* ‘be two in number’ or *lawa* ‘be many’), but these verbs all use I agreement for subjects (*ii-toklo* ‘we are two in number’). Other non-active intransitive verbs that use unexpected I agreement include *oppoloka* ‘be grouchy’ and *sámma'ta* ‘be quiet,’ which seem odd because most emotions and states use II agreement, like *hashaa* ‘be angry’ and *chokkilissa* ‘be quiet’ (Munro 2005). The subjects of transitive verbs are expected to be marked with I agreement, but there are some non-active transitive verbs that use II agreement for subjects, like *banna* ‘want’ or *nokfónkha* ‘remember,’ which cannot have a non-third person object. Constructions like ‘I want you’ or ‘she remembers me’ cannot be expressed in Chickasaw using a single clause, because only one agreement affix of the same set can appear on the verb[12] (Munro 2005). Yet, many other non-active transitives use I,II agreement, including *ayokpánchi* ‘like,’ *pisa* ‘see,’ and *ithą́na* ‘know’ (Munro 2005).

Some exceptional verbs have a known historical explanation relating to lexicalization via reanalysis or grammaticization. For example, the intransitive verb

[12] This is a noticeable difference between Chickasaw and Choctaw, as Choctaw does allow two set II affixes to appear on the same verb, e.g. with ‘want’ *bannah* (Broadwell 2006).

hopoo, ‘be jealous,’ takes I agreement. But there is also a transitive meaning of this verb, *hopoo* ‘be jealous of someone,’ an I,II verb (*sa-hopoo* ‘he is jealous of me’). Frequent use of this verb with an unspecified and unmarked third person object likely lead to a reanalysis of this verb as an intransitive verb (*hopoo-li* ‘I’m jealous (of someone)’ becoming just ‘I’m jealous (in general)’) (Munro and Gordon 1982). A similar explanation can be applied to other non-active intransitive verbs with I marking, like *ittihalalli* ‘be married,’ which likely had an originally transitive meaning (‘be married (to someone)’) but was reanalyzed as an intransitive verb. The lack of marking third person arguments sets the stage for this type of reanalysis regarding transitivity (Mithun 2010). Additionally, Chickasaw has a reflexive prefix *ili-* and a reciprocal prefix *itti-* that can be used to derive new verb stems, but these have been grammaticized to only use I agreement marking, even if they were originally a non-active intransitive verb that used II agreement (e.g. *nokfónkha* ‘remember (something)’ II, to *ittinokfónkha* ‘remember each other’ I). Thus some non-active intransitive verbs with I marking are inherently reciprocal or reflexive, even though their base stems may no longer be in use in the language (e.g. *ilifoyyo'chi* ‘be proud’ and *ilipo̲a* ‘be careful,’ have no corresponding stems like **foyyo'chi* or **po̲a*, and no longer have a semantically reflexive meaning) (Munro and Gordon 1982).

Many exceptions do not have a known historical explanation for their existence, but their source may yet be discovered. Mithun (1991) argues that many active inflection systems are not fully understood due to various impeding factors, including lexicalization and grammaticization, which obscure the original semantics motivating the system. Language contact can motivate lexicalization or grammaticization and

additional crosslinguistic factors, including the drawbacks of translations, can further render the motivations of a system opaque (Mithun 1991). Additionally, the underlying motivations of a system can shift overtime, or multiple diachronic developments can shift parts of the system (Mithun 1991). And of course, many or all of these can occur in a single language, which is likely the case for Chickasaw and why the system is now considered lexically determined (Munro and Gordon 1982).

Munro and Gordon (1982) analyzed the Chickasaw inflection system under a purely syntactic analysis, but found that this also did not adequately explain or predict verbal inflection. In the analysis, they concluded that the Chickasaw system was likely originally semantically motivated, but the system has changed over time and now some verbs are syntactically motivated (Munro and Gordon 1982). The syntactic changes are discussed in section 2.3.3, but involve changing the agreement set that marks the subject for purely syntactic, not semantic, reasons. The syntactic changes prove that the semantics of the verb do not fully control which argument is marked with which specific agreement set. Thus today, the Chickasaw (and other Muskogean languages') agreement system can be unrelated to the syntactic or semantic structure of how a verb is used, and is often considered lexically determined and fixed. Since the system is not purely semantically or syntactically motivated, I follow Munro (2005, Munro and Gordon 1982) in referring to the agreement sets as I and II and the arguments as active/non-active rather than active/stative or agent/patient.

Every verb in Chickasaw controls not just the type of argument (I or II), but the number of arguments that can occur within its clause. The following examples have the maximum number of arguments allowed by each verb. Recall that third person

arguments are not marked on the verb with I or II agreement. If the verbs in (25) - (29) had non-third-person arguments, they would have either I or II agreement marking, except for the verbs *chompa* and *hochifo*, which specify only a third person object argument, indicated by the number 3.

(25) *Johnat anompoli*. 'John is talking.' [I]

(26) *Johnat tikahbi*. 'John is tired.'[II]

(27) *Johnat ofi' pisa*. 'John sees the dog.' [I,II]

(28) *Johnat ofi' chompa*. 'John bought the dog.' [I,3]

(29) *Johnat "Konta" ofi' hochifo.* 'John named the dog "Konta".' [I,II,3]

Notice that all subjects are marked with nominative case (*-at*), whether they are subjects of I or II agreement verbs. Any of these verbs may be used without any overt arguments or with affixes to indicate non-third person arguments (compare (27) with (16), (26) with (17), (27) with (18-19)). Regardless of affixes, the number of arguments required by the verb always remains constant (e.g. *ish-chompa* 'You bought it/them,' *sa-hochifo* 'He/she/they named me (something)'). Chickasaw verbs very strictly control the number of required arguments. Verbs like *hochifo*, that inherently require three arguments (called ditransitive verbs), are rare. More often, bare verbs are either intransitive or transitive. However, the number of arguments allowed by a bare verb can be reduced or increased by using derivational affixes to create new verb stems.

2.3.2 Derivation

Chickasaw has several derivational affixes that can be added to verbs to change the number of arguments allowed by the verb. Adding these affixes creates a new verb stem with a new, sometimes unexpected, meaning. Derivational affixes include

applicatives, passives, and causatives. These affixes are best understood as derivational because their use is not fully productive, they often result in lexically unpredicted meanings, and some derived stems cannot occur in their base form (Munro 2005).

Applicatives add a new object to the sentence, thus increasing the valency of a verb by one. Chickasaw has eight applicatives, including seven prefixes: *aa-* 'in,' 'at,' or 'from' (general locative), *a-* 'against,' *ibaa-* 'with' (comitative), *im-* 'to' or 'for' (dative), *imaa-* 'from', *okaa-* 'in,' and *on-* 'on;' and a proclitic *ish(t)* 'with' (instrumental). Most verbs take only one applicative at a time, though some can be combined. The applicatives *aa-* and *okaa-* can only have an inanimate argument, *im-* and *imaa-*[13] can only have an animate argument, and the others take either an inanimate or animate argument. If the applicative refers to a non-third person argument, which must be animate, that object is marked with a II agreement prefix. Consider the various constructions created by adding an applicative to *malli* 'jump,' an active intransitive verb. All verbs in (30) - (36) are transitive verbs.

(30) ***aa****malli* 'jump from/off/out of (something)' [I,3]

(31) ***ibaa****malli* 'jump with (someone)' [I,II]

(32) ***i****malli* 'jump for (someone)' [I,II]

(33) ***okaa****malli* 'jump into (something)' [I,3]

(34) ***o****malli* 'to jump on (something or someone)' [I,II] or [I,3]

(35) ***ish****malli* 'to jump with (someone, by means of carrying them),' [I,II]

(36) ***ibaaokaa****malli* 'jump into (something) with (someone)' [I,3,II]

[13] *imaa-* is a transparent combination of dative *im-* with locative *aa-*, to get the meaning of specifically from an animate source (since locative *aa-* refers only to inanimates) (Munro 2000).

No single verb has been found that can occur with all eight applicatives, and some that seem semantically appropriate do not occur (Munro 2000). Some Chickasaw verbs may have more than one applicative, as in (39), but only one applicative may have an object marked with an agreement affix. Chickasaw has no adpositions or postpositions, with the verb controlling whether or not locative arguments are allowed in the clause.

Remember that Chickasaw verbs can have up to two agreement affixes from different agreement sets and that, on any verb, only one agreement affix can refer to a non-subject (Munro 2000). This means that when an applicative is added to a transitive verb that already has I and II agreement, that applicative has to be referring to a third person argument. Statements like 'Mary bought a car for you with me' cannot be expressed in Chickasaw using multiple applicatives with multiple agreement affixes on a single verb (though this can be done for some speakers of Choctaw, Munro 2000). To express such a statement, Chickasaw instead requires multiple clauses. However, you can express 'I bought a car for Mary with you' (*Maryą kaa' chi-baa-in-chompa-li*) or 'Mary bought a car for him with me' (*Maryat kaa' sa-baa-in-chompa*) etc., since these statement are only using one non-third person object. Chickasaw verbs strictly control the number and types of allowable arguments.

Chickasaw has other proclitic preverbs, like *isht*, but they do not function as applicatives and rather modify the meaning of the verb. The preverbs and all of the applicatives except dative *im-* do not figure heavily in the discussion of grammar and variation in this section and the discussion of learner data in Chapter 5. But, the dative

im- has a complicated usage in Chickasaw and other Muskogean languages and is discussed further in the next section.

Chickasaw has derivational suffixes that create passives, which reduce the number of arguments by one, and causatives, which increase the number of arguments by one. Some passive and causative suffixes are no longer productive in the language, but can be observed through pairs of related verbs (Munro calls these v1-v2 pairs, Munro and Willmond 1994). Figure 4 shows some of many[14] such sets. All v1 verbs have one less argument than their v2 counterpart (Munro 2005).

v1	v2
taha 'be finished'	*tahli* 'finish (it)'
wakaa 'fly'	*wakiili* 'make (it) fly'
kolofa 'be cut'	*koloffi* 'cut (it)'
tiwa 'open (by itself)'	*tiwwi* 'open (it)'
albi 'be smeared'	*aabi* 'smear (it)'
okshilitta 'be closed'	*okshitta* 'close (it)'
alhtaha 'be ready'	*atahli* 'get (it) ready'
alhkaniya 'be gone'	*kaniya* 'go away (somewhere)'
shiipa 'be stretched'	*shiibli* 'stretch (it)'
albani 'be barbecued	*abaani* 'barbecue (it)'
kamosha 'be tickled'	*kamoshli* 'tickle (it)'

Figure 4. Some Chickasaw v1-v2 pairs (from Munro and Willmond 1994)

The v1-v2 sets are derived from the same root, but many v1 verbs have added the suffix *-a* while v2 verbs have added the suffix *-li*, each causing their own predictable and observable morphophonological changes to the verb root (see Munro 2005). The v1 *-a* creates stative, passive, or middle versions of the verb root while the v2 *-li* suffix creates a causative or active version (Munro 2005). Some v1 verbs were instead produced by adding a more specifically passive infix *-l-*, seen in *albi*, *okshilitta*, *alhtaha*, *alhkaniya*, and *albani* (Munro 2005, Ohmori 1979).

[14] Of the ~4,100 verbs in the Munro and Willmond (1994) dictionary, there are over 400 pairs of v1-v2 verbs.

Chickasaw also has a productive causative suffix *-chi* (sometimes realized as *-chichi*), which can be added to most verbs, though not usually verbs that are part of a v1-v2 relationship (Munro and Willmond 1994). Adding *-chi* increases the number of arguments of a verb by one. When *-chi* is added to any intransitive verb, like *hilha* 'dance', the resulting verb is a transitive verb with I,II marking, where the causer of the action is the subject marked with I agreement and the causee is marked with II agreement (e.g *is-sa-hilha-chi* 'you make me dance'). The same result occurs when *-chi* is added to an intransitive non-active verb (e.g. *sa-bika* 'I'm sick,' becomes *is-sa-bika-chi* 'you make me sick'). When *-chi* is added to a transitive verb that uses I,II or I,III agreement, the resulting verb is ditransitive (*pisachi* 'make someone look at something/someone'). The II or III-marked object on ditransitive causatives can refer to either the original object (e.g. the person being looked at) or the new causee object (e.g. the person being made to look). Thus a statement like *sa-pisachi* can mean either 'he made me look at him' or 'he made him look at me' (Munro and Willmond 2008). As always, Chickasaw verbs cannot have more than one non-third person object, so a single verb cannot express a statement like 'I made you look at us.' Verbs derived with causative *-chi* behave like any other verb and can be inflected with all previously described morphology or further derived with an applicative or preverb.

Finally, some Chickasaw verb stems specify the number of arguments. Recall that nouns in Chickasaw do not indicate number and third person arguments that are null-marked on the verb can be interpreted as singular or plural. The optional third person plural prefix *hoo-* can be used to specifically refer to a third person subject, but some pairs and sets of verbs in Chickasaw specify the number of their subjects or

objects. For example, some verbs have singular-plural pairs, like *malili* 'run,' which can only refer to a singular subject, and *tilhaa*, for plural subjects. Other verbs have a three-way distinction of singular-dual-triplural, like the verbs for 'throw away,' which specify the number of the object: *kanchi* for a singular object, *fimmi* for dual objects, and *lhatabli* for triplural objects.

All Chickasaw verbs, including complex derived forms and simple base forms, strictly control the number and types of objects that can occur within each clause. Chickasaw verbs have a strong constraint against having more than four arguments, and only a few rare verbs can have this many. For example, a transitive verb with two added applicatives (e.g. *aa-imaa-chompa* 'buy (something) from (someone) in/at (somewhere)'), and not even all speakers will accept such constructions (Munro 2000).

2.3.3 III-Dative Agreement

Dative agreement in Muskogean languages is a complex phenomenon because the dative prefix *im-* has many functions. The dative prefix *im-* functions as one of the applicative prefixes, described in 2.3.2, which add another argument to the verb, deriving new transitive and ditransitive verbs and serving as an applicative object on these verbs. But distinct from the dative-applicative function, this same prefix is involved in syntactic processes that promote non-subjects to subjects. Further syntactic and semantic changes have resulted in some verbs that use the dative to refer to subjects or other various kinds of objects. This section first further describes the use of the dative-applicative and then discusses the historical syntactic processes that have created verbs with III-dative subjects.

In all of its functions, *im-* is replaced by its own set of agreement prefixes to form the III-dative agreement set, which were previously described for possession on nouns in section 2.2.1 and are listed in Figure 5. It is important to note that *im-* is not considered a third person agreement affix. Since the III-dative affixes are underlyingly a combination of the II prefixes with the dative-applicative *im-*, third person agreement is considered null-marked. The III-dative prefixes are most commonly presented as a separate set of pronominal agreement prefixes rather than as their underlying forms because of how they function in the language and because of the aforementioned allomorphy which can make them difficult to segment (e.g. the allomorph *a̲-*, of which only the nasality is indicative of the underlying dative *im-*) (Munro 2016).

	1.SG	2.SG	3	1.PL	2.PL
III	*(s)a-m-*	*chi-m-*	*ø-im-*	*po-m-*	*hachi-m-*

Figure 5. Chickasaw III-dative agreement affixes

As an applicative, the added dative argument is always animate and often a semantic dative, which refers to an object that receives some part of the action of the verb. Dative objects are usually considered less affected and less inherent to the action of the verb, for example inherently transitive verbs usually take II arguments for their inherent object (e.g. *isso* 'hit' and *sho̲'ka* 'kiss' are both I,II verbs). The applicative use of the dative functions productively in the language. The result of adding dative-applicative *im-* to a verb depends on whether the verb stem is active or non-active and intransitive or transitive. An additional consideration is whether the verb is used with only inanimate subjects, but first verbs that can take either animate or inanimate subjects are considered. For most active intransitive verbs, *im-* adds a dative object that

can refer to third or non-third person, resulting in a transitive verb with I,III conjugation, as in (37) and (38).

(37) (a) ***Ish****anompoli*.
ish- anompoli
2SG.I- talk
'You're talking.' [I]

(b) ***Issam****anompoli*.
ish- am- anompoli
2SG.I- 1SG.III- talk
'You're talking to me.' [I,III]

(38) (a) ***Sa****nokhánglo*.
sa- nokhánglo
1SG.II- be.sorry
'I'm sad/sorry.' [II]

(b) ***Chi****nokhánglo****li***.
chim- nokhánglo- **li**
2SG.III be.sorry- **1SG.I**
'I'm sad/sorry for you.' [I,III]

The first person singular III-dative prefix realizes as *am-* when it is verb initial but will appear as *sam-* in certain environments, as in (37b) when it occurs after the I prefix *ish-*. Many active set I intransitive verbs can become transitive verbs by adding the dative-applicative. Thus *anompoli* 'talk' can become *imanompoli* 'talk to,' *taloowa* 'sing' can become *intaloowa* 'sing for,' and *wakaa* 'fly' can become *i̲wakaa* 'fly for' (Munro 2005). Notice that when the dative-applicative is added to a non-active intransitive verb, the result is still a transitive verb with I,III conjugation, as in (38). Thus the dative-applicative will often change an argument from taking II to I agreement.

Most active transitive verbs have either I,II or I,3 conjugation. Adding the dative-applicative results in a ditransitive verb that uses I,3,III conjugation, where the 3 argument has to be third person and the dative object is now usually a semantic benefactive, or the person for whose benefit the action is performed. The resulting ditransitive verb can only, at most, refer to two non-third person arguments, one of which has to be the subject (this is true for all applicatives, described in 2.3.2).

(39) (a) ***Chi****halili****li***.
chi- halili- **li**
2SG.II- touch- **1SG.I**
'I touched you.' [I,II]

(b) ***Chi****halili****li***.
chi- halili- **li**
2SG.III.DAT- touch- **1SG.I**
'I touched him/her/them/it for you.'[I,3,III][15]

(40) (a) *Bichili****li***.
bichili- **li**
pour- **1SG.I**
'I poured it.' [I,3]

(b) ***Chim****bichili****li***.
chim- bichili- **li**
2SG.III.DAT-pour- **1SG.I**
'I poured it for you.' [I,3,III]

Thus a large number of transitive verbs that can add a dative-applicative object are I,3 verbs, since the purpose of the dative-applicative is usually to add a new animate object and a transitive I,II verb already has an animate object while a I,3 verb does not. Notice that the derived dative verbs in (39b) and (40b) can only refer to an animate argument with the dative-applicative; they cannot be translated as *'I touched you for him/her/them' or *'I cut you for him/her/them.'

Adding the dative-applicative prefix *im-* to verbs is quite productive. While it may seem that the dative-applicative is rather predictable, as long as the base verb stem is known, the resulting dative verb's meaning can be unpredictable because some derived dative verbs result in an unpredictable variety of different kinds of objects, and some datives even mark subjects.

(41) ***Chim****a*. 'He gave it to you.' [I,III]

(42) ***Chi****hashaa*. 'He's angry at you.' [I,III]

(43) ***Chim****alikchi****li***. 'I doctor you.' [I,III]

(44) ***A****lashpa*. 'I feel hot.' [III]

[15] I differ slightly from how these abbreviations are used in the Chickasaw dictionary (Munro and Willmond 1994), because I consistently maintain the order of subject, object, applicative object, while the dictionary always lists arguments marked on the verb before arguments not marked on the verb (e.g. I,III,3).

(45) ***Chim****imanompoli****li***. ‘I talked to him for you.’ [I,3,III]

(46) ***A****holiitopa*. ‘I’m hoarding it.’ [III,3]

In (41), (42), and (45), the dative marks the recipient, goal, and benefactive, respectively (Munro 1983). In (43), the dative marks the non-active object on an active transitive verb (while most such verbs use I,II agreement). In (44), the dative is the subject of a non-active verb. In (45), a verb with two dative-applicative prefixes (which is rare), the dative marks both the obligatorily third person dative object and the non-third person benefactive object. (46) shows the dative acting as the subject of an active transitive verb. Additionally, some verbs exist only with the dative prefix, like *ihollo* ‘love’ (I,III), *ima* ‘give’ (I,3,III), and *intakho'bi* ‘be lazy’ (III). There are no corresponding non-dative stems **hollo*, **a*, and **takho'bi* although likely there once were. Thus while the dative often acts like a predictable applicative argument, there are numerous examples of III-dative agreement being used where I or II would be expected. The source of the unpredictability of III-dative agreement likely lies in historical syntactic and semantic changes that have occurred primarily with intransitive verbs using the dative-applicative prefix.

Many non-active intransitive verbs that often or exclusively refer to animate subjects (like *tikahbi* ‘be tired’) do not make sense with a dative argument, although these verbs can be made transitive with the causative suffix (section 2.3.2). On the other hand, there are many non-active intransitive verbs that often or exclusively refer to inanimate subjects, because semantically they do not make sense with animate, especially human, subjects. Consider the verb *champoli* ‘taste good,’ which is, naturally, most often used to refer to food, as in (47). The intransitive verb *champoli* can

only take inanimate third person arguments as its subject, but the dative-applicative adds an animate argument to this verb, as in (48), creating a derived transitive verb.

(47) *Paskaat champoli*. 'The bread tastes good.' or 'The bread is sweet.' [3-at]

(48) *Paskaat **an**champoli*. 'The bread tastes good/sweet to me.' [3-at,III]

Intransitive verbs that are used mostly or exclusively to refer to third person subjects and that can have a dative-applicative added, like *champoli*, are the verbs most susceptible to syntactic and semantic changes via syntactic processes (Munro 1984). Chickasaw has several well-described syntactic processes that promote a non-subject to the role of subject when the non-subject is more salient, meaning the speaker is more interested in talking about it (Munro and Gordon 1982, Munro 1999, 2005, 2016, Payne 1980). In other words, Chickasaw has several rules that allow the speaker to change word order when they want to emphasize the object as more important to the discussion. One syntactic process, called the Applicative Subject construction (Munro 2016, 1984), occurs especially often with the dative-applicative. This construction is most easily observed with third-person subjects. Consider (49).

(49) (a) *Paskaat Bill **in**champoli*. 'The bread tastes good to Bill.' [3-at,III]

(b) *Bill**at** paskaat **in**champoli*. 'To Bill, the bread tastes good.' [III,3-at] {AS}

In (a), the dative-applicative *im-* has been added to an intransitive verb creating a transitive verb. The derived transitive verb has an inanimate third person subject and III-dative marked experiencer object, summarized as a 3-at, III verb (Munro 1984). The addition of the dative-applicative *im-* allows the animate experiencer 'Bill' to be in the newly derived transitive sentence. In (49b), 'Bill' is then promoted to the role of subject through the Applicative Subject construction, because a speaker is probably more

interested in talking about the animate argument Bill rather than the bread, *paska*. The Applicative Subject construction moves the original-object noun ('Bill' in this example) to the subject position and adds the nominative marker *-at* (Munro 2016). Notice though that the original-subject noun (*paska* in this example) does not lose its own nominative marking in (49b). Thus the Applicative Subject construction creates a multiple nominative clause, where more than one noun is marked with nominative case, as seen in (49b). However, only the new derived subject ('Bill' in this example) is the true syntactic subject of the clause, which can be proved via tests for subjecthood that will not be repeated here (see Munro and Gordon 1982, Munro 1983, 1999, 2016).

The Applicative Subject construction cannot occur with every intransitive verb that can have a dative-applicative object added, and thus is considered lexically specified by the verb (Munro 2016). Semantically, this construction occurs only with non-volitional verbs and cannot occur with active volitional verbs, even if those verbs can have a dative-applicative added (Munro 1999). For the Applicative Subject construction to occur, the original sentence can only have a third person subject, like *paska* in (49a). (49b) can also be translated as 'Bill likes the taste of the bread.'

The verb in an Applicative Subject construction often results in a different translation than that of the original verb (compare *champoli* 'taste good' to *inchampoli* 'like the taste of') (Munro 2016). Some verbs have even developed separate meanings for their dative-applicative forms and their Applicative Subject forms, for example the verb *ala* 'arrive' in (50) (Munro and Gordon 1982). In (50a), the verb *ala* can have a contextual meaning referring to birth, when appropriate like with the noun for 'baby,' *chipota*. In (50b), the derived form *im-ala* is a I,III verb, formed by adding the dative-

applicative, and has the meaning ‘arrive to (someone)’ and again the contextual reading regarding a recent birth can apply. In (50c), *im-ala* is a III,3-at verb, formed by the Applicative Subject construction, and now only has the meaning of ‘give birth to (someone)’ (Gordon and Munro 1982).

(50) (a) *Chipotaat alatok*. ‘The baby arrived.’ / ‘The baby was born.’ [I]

(b) *Chipotaat Jan **im**alatok*. ‘The baby arrived / was born to Jan.’ [I,III]

(c) *Jan**at** chipotaat **im**alatok*. ‘Jan gave birth to the baby.’ [III,3-at] {AS}

(d) ***Im**alatok*. ‘He arrived for her.’ [I,III] / ‘She gave birth.’ [III,3-at] {AS}

Notice that (50d), which has no overt noun arguments, can be interpreted as having either the dative-applicative meaning, where the III-dative argument is an object, or the Applicative Subject construction meaning, where the III-dative argument is the derived subject. If the verb is marked with I agreement, it cannot have the Applicative Subject meaning of ‘give birth’ (e.g. *im-ala-li* ‘I came to her/I arrived for him’), since the Applicative Subject construction results in a verb that does not have I agreement (Munro and Gordon 1982).

Many verbs have developed III-dative agreement due to the Applicative Subject construction. In addition to those already discussed, such verbs include: *imalhtoba* ‘be/get paid’ (III,3-at) from *alhtoba* ‘be paid for’ (3-at); *i̲holitto'pa* ‘consider (it) precious or dear’ (III,3-at) from *holitto'pa* ‘be precious/holy’ (II); and *i̲lhg̲'a* ‘spill (it)’ (III,3-at) from *lhg̲'a* ‘spill/be spilled’ (3-at) (see Munro 1999 for a list). Notice the differences in translation between the original verbs and the Applicative Subject verbs, showing that many verbs may be lexicalized with new meanings in this construction (Munro 1999). These verbs are summarized as III,3-at verbs because the derived

subject, which is the semantic subject that agrees with III-dative agreement, takes nominative case marking, but so does the original-subject third-person argument, referred to as '3.'

Some verbs that have undergone the Applicative Subject construction, especially those that have changed semantically through lexicalization, may be further altered by being reanalyzed as having only a III-dative subject. For example, the verb *inchampoli*, created by the Applicative Subject construction, has been reanalyzed and today *inchampoli* is treated as a III-dative subject transitive verb with the meaning 'like the taste of,' as shown in (51). Notice that the original subject, *paska*, is no longer marked with nominative *-at* and can even optionally be marked accusative with *-a*, as in (b). The examples in (51) are no longer Applicative Subject constructions, but instead are a specific type of transitive verb that takes III-dative subjects.

(51) (a) *Bill**at** paska **in**champoli*. 'Bill likes the taste of (the) bread.' [III,3]

(b) *Paska**a** **an**champoli*. 'I like the taste of (the) bread.' [III,3]

(c) ***An**champoli*. 'I like the taste of it.' [III,3]

The reanalysis can likely be attributed to the lexicalization of the derived verb in combination with the nominative marking on the original-subjects in some Applicative Subject constructions becoming optional. When the nominative *-at* only appears on the III-dative argument, as in (a), the verb is easily reanalyzed as having only a III-dative subject and taking a third person object. The lack of morphological marking for third person arguments likely makes these constructions prone to reanalysis (Mithun 2010). Thus intransitive verbs that are primarily used with third person arguments, and never

or rarely taking I or II subject agreement, are most susceptible to the Applicative Subject construction and subsequent lexicalization and reanalysis.

Many verbs have likely become III-dative subject verbs due to the combination of the Applicative Subject construction and reanalysis. Such verbs might include *imalhtaha* ‘be ready’ (III) (from *alhtaha* ‘be ready’ (3-at)), *i̲lashpa* ‘feel hot’ (III) (from *lashpa* ‘be hot’ (II)), and *imannoya* ‘know, have been told’ (III) (from *annoya* ‘be known, be told about’(II)). It may even be that most III-dative subject verbs originally derived from a reanalysis after a syntactic process like the Applicative Subject construction (Munro 2016). Some verbs even appear in a transitional stage where they can use either the Applicative Subject construction, as a 3-at,III verb, or as a reanalyzed III-dative subject verb with basically the same meaning, as in (52).

(52) (a) *Paska**at am**alhpi'sa*. ‘I have enough bread.’ (III,3-at) {AS}

(b) *Paska **am**alhpi'sa*. ‘I have enough bread.’ (III,3) {reanalyzed}

The verb *imalhpi'sa* is the only verb listed in the dictionary (Munro and Willmond 1994) as taking either conjugation, and is listed with the same translation, ‘have or have had enough of.’ Although Munro has noted that in certain contexts, even “conservative” speakers prefer the reanalyzed version of (b) (1999).

Another similar, but importantly distinct, syntactic process that promotes a non-subject to subject is likely responsible for the existence of many other III-dative subject verbs. Possessor Raising promotes the non-subject possessor to the role of subject, replacing the original subject that was the possessed noun. Consider (53), where the original subject is *ofi'* in (53a) but the possessor noun *hattak* is raised to the role of subject in (53b) and (53c).

(53) (a) *Hattak imofi'at ishto.* [II]

(b) *Hattak**at** imofi'at ishto*. [3-at,3-at,II]

(c) *Hattak**at** ofi'at **im**ishto*. [III,3-at]

‘The man’s dog is big.’ (Munro 2016)

There are two ways to raise the possessor to the role of subject. One involves only the marking of the new subject, the originally unmarked possessor noun, with nominative *-at*, as in (54b). The other involves both double subject marking and removing the III-dative prefix from the possessed noun while adding dative *im-* to the verb. While all examples in (53) can be translated the same, Possessor Raising occurs when the possessor noun is more salient to the discourse (see Munro 2005 for examples in a text). Thus (53b) and (53c) may also be translated as ‘The man has a big dog,’ since the result of Possessor Raising is to focus more on the newly derived subject, ‘the man.’ The Possessor Raising form in (53c) is perhaps more common, but some verbs will only allow one type of Possessor Raising (Munro 1999). Possessor Raising is also possible with non-third person arguments, as in (54).

(54) (a) ***Am**ofi'at ishto*. [II]

(b) ***Am**ofi'at **am**ishto*. [3-at,III]

(c) *Ofi'at **am**ishto*. [III,3-at]

‘My dog is big.’

Possessor Raising cannot occur on any or every verb, but rather is lexically specific to only certain verbs[16] (Munro and Gordon 1982, Munro 1999). The dictionary lists over a hundred verbs that can undergo Possessor Raising (Munro and Willmond 1994).

However, there is an important distinction between the use of III-dative prefixes in Possessor Raising and their use as applicatives. A verb derived with the dative-applicative (including Applicative Subject constructions) is a transitive verb that often has a meaning that is appropriately semantically different from the base verb, like *champoli* 'taste good' to *inchampoli* 'taste good to (someone)' and *anompoli* 'talk' to *imanompoli* 'talk to (someone).' But a verb that has dative *im-* added during Possessor Raising is not a new derivation, because it does not have inherently different semantics (Munro and Gordon 1982). As seen in (53) and (54), only the original-subject 'dog' has anything to do with 'be big,' the meaning of the verb *ishto*. The addition of the dative to the verb is only to show or emphasize the syntactic involvement of the more salient animate possessor noun (Munro and Gordon 1982). But the resulting dative verbs are not derivations of the original verb and can only be used in the specific syntactic construction of Possessor Raising. The verb *imishto* does not mean *'have (something big),' because this word can only occur in contexts like (35) (Munro and Gordon 1982). Similarly, conjugations like *amishto* in (53) do not mean *'I have something big' when used in isolation, and can only occur in the Possessor Raising construction (Munro and Gordon 1982).

[16] Munro (1999) provides some interesting examples of seemingly semantically similar verbs where one can undergo Possessor Raising but one cannot (e.g. *hopoba* 'be hungry´ can but *tokshila* 'be thirsty' cannot).

Related to Possessor Raising is the Chickasaw ‘have’ construction, which is created by using Possessor Raising with positional verbs (Munro 2006, 2016, Munro and Gordon 1982). Chickasaw has twenty-four sets of positional verbs that specify the subject noun’s posture, orientation, and/or location, in addition to number (every set has a singular, dual, and triplural form). For example, the verb *wáyya'a*, in (55), specifies that the subject noun is singular with an opening facing downward (this verb is commonly used to refer to four-legged animals or objects) (Munro 2016). (a) shows the original verb and (b) shows the verb created from Possessor Raising, which is now a ‘have’ construction.

(55)(a) *Hattak **im**ofi'**at** wáyya'a*. [I]
hattak **im-** ofi'- **at** wáyya'a
man **DAT**-dog- **NOM** be.located.with.down.opening.SG
‘The man’s dog is (there).’

(b) *Hattak**at** ofi'**at** **i**wáyya'a*. [3-at,III] {PR}
hattak- **at** ofi'- **at** **im-** wáyya'a
man- **NOM** dog-**NOM** **DAT-** be.located.with.down.opening.SG
‘The man’s dog is (there).’/‘The man has a dog.’ (Munro 2016)

Notice that the difference in translation is similar to Applicative Subject constructions. Since the ‘have’ construction is a slightly different kind of Possessor Raising, these verbs can be used with non-third person subjects as well. Consider (56) - (58), which show one set of positional verbs used in regular constructions and Possessor Raising ‘have’ constructions. These verbs all refer to animate subjects but differ in number.

(56) (a) *Chipotaat ánta.* ‘The child is there.’ [I]

(b) *Chipotaat **am**ánta*. ‘I have a child.’ [III,3-at] {PR}

(57) (a) *Chipotaat á̲shwa*. ‘The (two) children are there.’ [I]

(b) *Chipotaat **am**á̲shwa*. ‘I have (two) children.’ [III,3-at] {PR}

(58) (a) *Chipotaat áyya'sha*. ‘The (three or more) children are there.’ [I]

(b) *Chipotaat* ***am****áyya'sha*. ‘I have (three or more) children.’ [III,3-at] {PR}

Thus while the ‘have’ constructions used with positional verbs seem to have been clearly created by Possessor Raising, they function slightly differently and have been lexicalized more so than any other Possessor Raising verbs (Munro 1999). Speaker variation with Possessor Raising ‘have’ constructions is discussed in section 2.5.1.

Processes that result in syntactic and semantic reanalysis, like the Applicative Subject and Possessor Raising constructions, may be responsible for the exceptions in the Chickasaw (and other Muskogean languages’) agreement system, including the I and II agreement exceptions discussed in the previous subsection (Munro 1999). But there is little historical material with which to test such hypotheses (Munro 1999). Thus determining whether the Applicative Subject or Possessor Raising constructions, or both, were originally responsible for the creation of some III-dative verbs via lexicalization may not be possible. But some other III-dative subject verbs that are likely derived from syntactic changes and reanalysis include: *imahooba* ‘think’ (III), from *ahooba* ‘seem or like look’ (I;II); *inkaniya* ‘lose’ (III,3-at), from *kaniya* ‘go away’ (I); and *imalhkaniya* ‘forget’ (III,3) from *alhkaniya* ‘be forgotten’ (II) or ‘be left behind’ (3-at).

The Chickasaw agreement system has been analyzed as semantically motivated (Payne 1982) and as syntactically motivated (Munro and Gordon 1982, Munro 1999), but neither analysis provides a full explanation. Underlyingly, the Chickasaw agreement system is based on the semantics of control and while there are many exceptions with I and II agreement, an understanding of the semantics can predict the conjugations of

most verbs (Munro 2016). But III-dative agreement is highly unpredictable in terms of semantics, because it developed due to syntactic motivations. III-dative agreement can indicate the subjects of semantically active and non-active intransitive or transitive verbs, and these can be the sole semantic subjects of reanalyzed verbs (like *am-alhtaha* 'I'm ready'). III-dative agreement can also indicate objects on semantically active and non-active verbs (like *am-anompoli* 'he's talking to me' or *a̲-nokhánglo* 'he's sad for me'). While there are historical reasons behind why such a large number of exceptions exist in the Chickasaw agreement system today, it is unlikely that speakers are accessing such rules and reasons every time they speak. For this reason, the system is described as lexicalized, meaning that speakers know to use certain agreement with certain verbs rather than having to consider syntactic or semantic categorizations every time they speak (Mithun 1991, Munro 2016).

2.3.4 Tense, Modality, and Aspect

Tense refers to the time period in which an event took place, such as the present or the past. Modality indicates the speaker's attitude toward the event, like whether or not they consider the event to be probable, possible, or necessary. Aspect indicates the manner in which an event occurs, like whether or not it happened repeatedly or continually. Chickasaw verbs can be modified with suffixes or other processes in order to indicate tense, modality, and aspect.

As previously mentioned, bare verbs in Chickasaw indicate either the present or an immediate past tense, referring to events that have happened recently, on the same day. To indicate past tenses, suffixes are used. The past tense suffix *-tok* refers to a non-remote past while the suffix *-ttook* refers to a remote past. *-tok* is used regularly to refer

to any past event, from earlier in the same day to many years ago (Munro 2005). The remote past in Chickasaw is used for events that happened in a time period considered emphatically long ago to the speaker, such as during their childhood or for historical events. The remote past suffix *-ttook* is often used in storytelling (Munro 2005). Thus the difference between *anompoli-li-tok* and *anompoli-li-ttook*, which can both be translated as 'I spoke' or 'I was talking,' is in how long ago the event occurred.

The incompletive suffix *-a'chi* is a modal suffix that indicates that the event has not yet occurred. Although it is a modal suffix, *-a'chi* is regularly used to indicate the future tense in Chickasaw (*anompoli-l-a'chi* 'I will speak' or 'I'm gonna speak'). There are two other modal suffixes. One is *-a'ni*, which indicates potential, meaning the speaker believes the event might occur although it has not yet. Verbs with *-a'ni* are usually translated with 'can' or 'might' (*anompoli-l-a'ni* 'I can speak,' 'I might speak'). The other is the less well understood *-a'hi*, which is most often used with the auxiliary *bíyyi'ka* to indicate ability, meaning the speaker believes it is possible for the event to occur (*hilha-l-a'hi bíyyi'ka* 'I can dance (I have the ability)'). Thus *-a'hi* used with *bíyyi'ka* is also often translated with 'can,' but it has a different meaning than when *-a'ni* is translated with 'can' (Munro and Willmond 2008). Some tense and modal suffixes can occur on the same verb, as in *anompoli-l-a'chi-tok* 'I was going to speak,' which has both the past tense suffix *-tok* and the modal suffix *-a'chi*. Lastly, *-ha'ni* is the epistemic modal suffix, which means the speaker concluded or deduced that the event is going to occur, but they do not know for sure. *-ha'ni* is often translated with 'must' and occurs on fully inflected verbs and can follow any other modal or tense suffix (*hilh-a'chi-ha'ni* 'they must be going to go dance') (Munro 2005).

Other tense and modal suffixes cannot co-occur with any other suffixes and must be the last suffix on the verb. There are two evidential tense suffixes, which indicate that the speaker knows the events happened because they actually saw it. *-shki* is used to indicate a tense similar to bare verbs, referring to the present or recent past. *-mankǫ* refers to any past event that the speaker witnessed. Negative hortatives are formed with the suffix *-nna* and use full agreement inflection (*Naaholloimanompa' ish-anompoli-nna!* 'Don't speak English.' Or 'You must not speak English!'). There are other less common modal suffixes not described here (Munro and Willmond 1994).

In addition to the many inflectional and derivational affixes already discussed, Chickasaw verb stems may be internally modified to indicate aspect. The derived forms are known in the Muskogean languages as verb grades. Verbs of all conjugation types can be made into grade forms and the resulting grades follow the same conjugation patterns. The meaning of the grade form often depends on whether the verb is active or non-active. For instance, the N grade of active verbs indicates an ongoing or backgrounded action, while non-active N grades indicate a standardless comparison (Munro 2005). The N grade is formed by accenting and nasalizing the penultimate syllable of the verb stem, as seen in (59), with the transitive verb *ithana* 'learn' I,II and intransitive verb *tikahbi* 'be tired' II. The name of each grade is based on the segments or processes involved in their formation, thus the N grade is formed with nasalization.

(59) (a) ***Ithą́na****li*. 'I know it.'

(b) *Sa****tiką́hbi***. 'I'm more tired.'

Notice that the resulting grade form can sometimes be translated with a different verb in English. The HN grade indicates a repeated, habitual, or prolonged action and is more

common with active than non-active verbs (Munro 1985). This grade is formed like the N grade, but additionally has an extra syllable consisting of a copy vowel followed by *h*, preceding the accented and nasalized vowel (Munro 2005).

(60) (a) ***Ithah<u>á</u>na****li*. 'I'm always learning.'

(b) *S****atikahámbi***. 'I get tired all the time'

The Y grade indicates an intensive for most verbs, both active and non-active, though some non-active verbs form a resultative meaning. The Y grade is formed by inserting an accented copy of the verb's penultimate vowel followed by a geminate *y* (Munro 2005).

(61) (a) ***Itháyya'na****li.* 'I'm really learning it.'

(b) *S****atikáyya'hbi***. 'I'm very tired.' / 'I'm exhausted.'

The G grade varies the most in meaning and formation but often involves the gemination of the consonant following the verb's antepenultimate vowel, which becomes accented in this grade, as in (62b). The G grade may indicate either a resultative, intensive, or deintensive meaning (Munro 2005).

(62) (a) ***Ithá'na****li.* 'I finally learned it.'

(b) *S****atíkkahbi****.* 'I'm finally tired.'

The H grade is perhaps less common than the other three grades and usually only found with non-active verbs. This grade derives an intensive or emphatic meaning. The H grade is formed by adding an accented copy of the verb's penultimate vowel, followed by *hh* and adding a glottal before the ultimate consonant in the verb base. For example the H grade of the verb *banna* II,3 'want,' is *báhhanna* and means 'always crave'.

Some verbs can appear in all of these grades, but most verbs only allow the formation of a couple of grade forms. There are a few verbs that only appear in a grade form and never appear in their base form. Many verbs are irregular in their grade formation. Verb grade formation is much more complex than presented here, with other rare grades, irregularities, and exceptions (see Munro 1985 or Munro and Willmond 1994 for more).

2.3.5 Negatives and Questions

There are two ways to create negative sentences in Chickasaw, one involving the hypothetical prefix *ik-* and complex suffixation of a negative marker, resulting in a new derived negative verb stem. The other way involves using an auxiliary to create a periphrastic negative. Both negation processes occur in relatively free variation.

To create a negative verb stem, the hypothetical prefix *ik-* attaches to any verb while a negative suffix, *-o*, is simultaneously attached (e.g. *malli* 'jump' becomes *ikmallo*). The attachment of *ik-* is regular, but the attachment of *-o* creates morphophonological changes in many verb stems. The must regular change is if a verb ends in a vowel that is immediately preceded by a single consonant, (e.g. *pisa*), then a glottal stop is inserted before that consonant in the negative (e.g. *ikpi'so*). A negative verb stem with no agreement inflection indicates third person arguments. II or III agreement markers follow negative *ik-*.

(63) *Satikakhbi.* 'I'm tired.'

(64) ***Ik****satikahb****o****.* 'I'm not tired.'

(65) *Chimalhtaha.* 'You're ready.'

(66) ***Ik****chimalhta****'h****o****.* 'You're not ready.'

Chickasaw has one final set of agreement affixes, referred to as N prefixes (after Munro and Willmond 1994). The N prefixes, listed in Figure 6, occur on verbs that use I agreement and they replace the prefix *ik-* on negative verbs. Consider the conjugation of the active I verb *malli* 'jump' in the negative shown in Figure 6.

	1.SG	2.SG	3	1.PL	2.PL
N	*a-k-*	*chi-k-*	*ø-ik-*	*k-il k-ii*	*hachi-k-*
	ak*mallo*	***chik****mallo*	***ik****mallo*	***kii****mallo*	***hachik****mallo*
	'I don't jump.'	'You don't jump.'	'He/she/they don't jump.'	'We don't jump.'	'Y'all don't jump.'

Figure 6. Chickasaw N agreement affixes and examples

The N prefixes are likely a combination of the negative marker *ik-* with agreement prefixes, but their combination is archaic, obscure, and regular (Munro 1993), so they are always presented as their own agreement set. The most important consideration in relation to their formation, is that the *ik-* prefix is considered a mark of the negative that is part of a derived verb stem, and not as any sort of third person marker, which as usual is considered null-marked[17]. If a negative verb is inflected for tense or aspect, the linker *-ki-* has to be used, as in *akmallo-ki-tok* 'I didn't jump.'

A negative utterance can also be created by using the auxiliary negative verb *ki'yo* to create a periphrastic negative. Auxiliary *ki'yo* occurs either after a fully inflected verb with no morphology or the auxiliary *ki'yo* can be marked for some limited inflection instead of the main verb, including tense, aspect, and interrogative suffixes.

(67) ***Ak****mall****o****kitok*. 'I didn't jump.'

Mallilitok ***ki'yo***. 'I didn't jump.'

[17] The arguments for considering *im-* and *ik-* as dative and negative markers, respectively, rather than third person markers, center on the fact that they occur when there is clearly no third person referent, e.g. in command forms (Munro 1993, Munro and Gordon 1982, Martin 2011).

*Mallili **ki'yo**kitok.* ‘I didn’t jump.’

The negative utterances in (67) all translate the same and can be used in free variation (Munro and Willmond 2008).

Chickasaw has morphology to create different types of questions, including yes-no questions and questions that are analogous to the “wh” questions in English in that they use question words (e.g. “who,” “what” etc.). For yes-no questions, suffixes can appear either on the verb or the noun depending on what the question is focused on. The verbal suffix *-taa* forms a non-past yes/no question and *-taam* forms a yes/no question about the past (*anompoli-taa*? ‘is he talking?’, *anompoli-taam*? ‘did he speak?’). The nominal suffixes *-haat*/*-hta* are focus question case markers, which ask a yes/no question about the noun that they mark. These suffixes were described in section 2.2.2 as part of the case system. Intonation alone is often used to form questions in English, which uses rising intonation for questions and a falling intonation for statements. However, Chickasaw uses the opposite pattern, with rising intonation on statements and falling intonation on questions, when the question involves a question suffix (Gordon 1996, Walker 2000). Speaker variation with question formation is discussed in section 2.5.

Chickasaw has a series of question words that are related to indefinite words. Where the question words have *t*, indefinites have *n*. Such words include: *kata* ‘who’ and *kana* ‘someone,’ *nanta* ‘what’ and *nanna* ‘something,’ and *katiya'* ‘where’ and *kaniya'* ‘somewhere’ (Munro and Willmond 2008). The question words can be case-marked, either with the interrogative focus markers (*-haat*/*-hta*) or the focus markers (*-hoot*/*-hto*), both described in section 2.2.2. The indefinite words have to use the

indefinite case markers (*-hmat*/*-hmą*), as in *kanahmat anompoli* ‘someone is talking’ (Munro and Willmond 1994).

Chickasaw also has many question verbs that maintain the same distinctions between interrogative and indefinite. All of these verbs will not be described here, but one of the most common is the set *katihimi* ‘to do (what)’ and *kanihmi* ‘to do (something).’ Question and indefinite verbs have to be used with question and indefinite words, as in *nanta ish-katihmi?* ‘what are you doing?’ and *nanna kanihmi-li* ‘I’m doing something.’ However, interrogative and indefinite words can appear with non-question verbs, as in *nanta ish-pisa?* ‘what do you see?’ and *nanna pisa-li* ‘I see something.’

2.4 Discourse Structure

Chickasaw has several complex features that are used to connect utterances together. Such features are used in combination during any type of discourse, like story-telling or casual conversation. This section describes some of the more common morphological features that are used to structure discourse.

2.4.1 Complex Sentences

Complex sentences have more than one clause, which means they have more than one verb in Chickasaw. Chickasaw has several different ways of connecting multiple clauses, depending on what kind of relationship is being created between the two clauses. To create complex sentences, most verbs in Chickasaw make use of a complicated system called switch-reference, but some verbs are exceptional and operate outside of this system. This subsection describes the exceptional cases of participial,

complement, and relative clauses and then the complex switch-reference system is examined in the next subsection.

The suffix *-t* creates a participle from a verb. A participle modifies the action of the main verb, often not translated as a separate clause in English (Munro 2016). Participles are often translated in English with "-ing," but in Chickasaw the resulting modified verb action is often translated with a single verb phrase in English, as in *mali-t kaniya* 'he runs away,' literally 'running he goes away' (Munro and Willmond 2008). The participial verb has to refer to the same subject as the main verb and thus cannot be marked for subject, though it can be marked for object. However, when a participial verb is used with an auxiliary verb, the construction is slightly different. For example the auxiliary verb *taha* 'be all or very or completely' generally occurs with non-active verbs. When participial *-t* is used with *taha,* then the participial verb can be marked for subject, as in *sa-tikahbi-t taha* 'I'm all tired out.' If both the participial verb and the main or auxiliary verb are unmarked, and the verb ends in a vowel, the two may coalesce and sound like one word when spoken (e.g. *satikahbitaha*). A participial verb cannot grammatically act as a separate utterance and must be connected to a main clause verb. The participial clause always has to occur before the reference verb (Munro 2016). Other auxiliary verbs in Chickasaw do not occur with participial verbs and function differently (see Munro 2016).

The verbs *banna* 'want,' *aachi* 'say,' *imahooba* 'think' can take either a noun as their object, as in (68), or an unmarked complement clause, which means that a verb can act as the object of these verbs, as in (69). Most verbs cannot follow the structure seen in (79); these three verbs are exceptional.

(68) *Kafi' sa**banna***. ‘I want coffee.’

“*Kafi'” ish**aachi***. ‘You said “coffee”.’

*Kafi' a**mahooba***. ‘I think it’s coffee.’

(69) *Kafi' ishko sa**banna***. ‘I want to drink coffee.’

*“Kafi' ishko” ish**aachi***. ‘You said “Drink the coffee”.’

*Kafi' ishishko a**mahooba***. ‘I think you’re drinking coffee.’

If the complement clause verb occurs as a bare verb, in (69), then it must be referring to the same subject as *banna*. The only inflection that this sort of complement verb can take is for an object (e.g. *chipisa sabanna* ‘I want to see you’). In order to refer to a different subject in the complement clause of *banna*, that verb must use the modal *-a'ni*, as in (70). If the complement verb is uninflected for person but marked with the modal *-a'ni*, then a third person subject is assumed, as in (71).

(70) *Kafi' ishishk**a'ni** sabanna*. ‘I want you to drink coffee.’

(71) *Kafi' ishk**a'ni** sabanna*. ‘I want him/her/them to drink coffee.’

The different-subject *-a'ni* marked complement verb can only be inflected for subject or object. The verb *aachi* ‘say’ can be used to quote direct (72) or indirect (73) speech and the quoted clause can have full inflectional morphology. In (74), the verb *imahooba* works similarly, in that the complement clause is fully and independently inflected (Munro 2016).

(72) *“Ofi’ ipitalitok” ish**aash**taam?* ‘Did you say “I fed the dog”?

(73) *Ofi’ ipitalitok ish**aash**taam?* ‘Did you say (that) I fed the dog?

(74) *Ipitalitok a**mahooba***. ‘I think I fed the dog.’ (from Munro 2016)

Even though these three verbs can take a complement clause as their object, the clauses do not behave syntactically like other nominal objects in Chickasaw. These verbs' complement clauses cannot be postposed (moved after the main verb) nor can they have a following modifier (Munro 2016).

Chickasaw has a coordinating suffix *-hookya* that can be used to connect two clauses together. *-hookya* is most often translated as 'but,' though sometimes 'even though' can be a more fitting translation (Munro 2016). The *h* deletes after a consonant.

(78) *Chikhopo'bo**hookya** sahopoba*. 'You're not hungry but I'm hungry.'

(79) *Holissaapisa' ayalitok**ookya** sanostok*. 'I went to school but I fell asleep.'

Both verbs involved in a *-hookya* sentence are fully and independently inflected for person, tense, aspect, etc. (Munro 2016). Additionally, the verbs involved can have either the same subject, as in (79), or different subjects, as in (78). Usually when connecting clauses in Chickasaw, the suffix indicates the relationship between the clauses, like *-hookya* does, but also indicates whether the clauses have same or different subjects.

2.4.2 Clause-level Switch-reference

Switch-reference refers to a grammatical phenomenon that is used to track references across utterances. Switch-reference systems most commonly mark whether or not the subjects of two adjacent clauses are the same, in other words, if the subjects are 'switched' or not. For example, in English, the sentence 'Jim saw John and he punched him' is ambiguous about who did the punching, but a language with switch-reference would make it clear whether 'he' was the same as or different from the subject of the previous clause, 'Jim saw John'. In Chickasaw, switch-reference is

realized as a verbal suffix that marks whether that clause's subject is the same as or different from the subject of the main reference clause. Chickasaw has at least eight sets of switch-reference markers that mark inherently dependent clauses (Munro 2016).

Most of the switch-reference suffixes, listed in Figure 7, are analyzable as being made up of two parts, one that specifies the relationship of the two clauses and another that specifies same-subject (SS) or different-subject (DS). Notice in Figure 7 that all SS suffixes end in *-t*, while all DS suffixes end in a nasal vowel[18]. The eighth set of switch-reference markers, *-cha* and *-na*, do not follow this pattern in their surface forms although it may be argued that they are underlyingly a part of this same pattern (Munro 2016).

	SS	DS
irrealis	*-kmat*	*-kmą̲*
realis	*-hmat*	*-hmą̲*
backgrounding	*-tokoot*	*-tokǫ̲*
'because'	*-hootokoot*	*-hootokǫ̲*
conditional 'if'	*-hookmat*	*-hookmą̲*
complementizer	*-kat*	*-ką̲*
focus	*-hoot*	*-hǫ̲*
'coordinating'	*-cha*	*-na*

Figure 7. Chickasaw switch-reference suffixes

The first five switch-reference pairs listed in Figure 7 mark adjunct clauses and all behave similarly. The remaining three sets mark other kinds of clauses and thus are discussed after these five. An adjunct clause describes an action that is separate to the action of the main verb, but which can be linked to the main clause. How the adjunct

[18] The SR markers are often likened to the nominative and accusative markers (*-at*/*-ą̲*), and indeed the focus markers (*-hoot*/*-hǫ̲*) and realis markers (*-hmat*/*-hmą̲*) are identical in both the SR system and case system. But the examples in (77) – (81) show that an object clause is not marked with the nasalized vowel, the "accusative" form, when it refers to same-subject (Munro 2016). Thus SR markers are controlled by the subject of the reference verb while nominative and accusative markers are controlled by their syntactic roles.

clause is linked depends on which switch-reference suffix is used. (77) – (81) show the six adjunct switch-reference markers. Irrealis *-kmat*/*-kma* are often translated as 'if' or 'when,' realis *-hmat*/*-hma* as 'after,' *-tokoot*/*-toko* as 'having done…,' *-hootokoot*/*-hootoko* as 'because', and *-hookmat*/*-hookma* as 'if'.

(77) *Pisali**kmat** asayoppa'chi*. 'If/When I see him, I'll be happy.'

(78) *Taloowa**hma** hilhatok*. 'After he$_1$ sang, he$_2$ danced.'

(79) *Aachi**tokoot** okkisa' yamma takchit táyyahli*.
'Having said it, he tied up that gate.'

(80) *Satikahbi**hootokoot** nosila'chi*. 'Because I'm tired I'm going to sleep.'

(81) *Alhtobat tahattook**hookma** ímmayya iksaachi ki'yo aachiminamanko.*
'If it's been paid off, they always say they don't fix it up again.'

(from Munro and Willmond 2008, Walker 2000)

In (77) and (80), since both clauses are fully marked for person, the switch-reference suffixes may seem redundant, since the verbs already indicate if they have different or same subjects. Regardless, the switch-reference suffixes are obligatory here. In (78-79) and (81), with third person referents (which often occur when telling a story), switch-reference marking is not redundant since third person arguments are not marked on the verb. Notice that clauses are classified as SS even if the subject is marked with affixes from different agreement sets, as in (77) and (80). But, since II and III-dative prefixes can indicate subjects or objects, sometimes the reference clause verb and the main clause verb can have the same affix but still be DS clauses as in (82).

(82) *Sapísa**kma** asayoppatok*. 'When he saw me, I was happy.'

Notice that only the main clause is fully inflected; the marked adjunct clause can only be separately inflected for subject and/or object. The adjunct clause is dependent on the

main clause for tense, modality, and/or aspect and cannot itself be inflected for these. Thus, the marked clause of (82) inherits past tense from its reference clause.

Switch-reference marking only occurs on the dependent clause(s) and not on the main clause. The main clause is unmarked and is the reference used to determine whether the marked dependent clause has the same or different subject. The main clause is fully inflected and looks like any other verb, while the marked dependent clause is often limited in what kind of inflection it can have and must be marked with a switch-reference suffix, which has to be the last suffix on the verb. In switch-reference constructions involving adjunct clauses, the marked clause canonically occurs before the main clause but can be postposed for emphasis, as in (83) and (84) which are postposed versions of (79) and (80) (Munro 2005, Walker 2000). Only adjunct SS clauses can be center-embedded (Munro 2005).

(83) *Hilhatok taloowa**hm<u>a</u>**.* 'He danced after he sang.'

(84) *Nosila'chi satikahbi**hootokoot**.* 'I'm going to sleep because I'm tired.'

The complementizing suffixes, *-kat*/*-k<u>a</u>*, are some of, if not the most, commonly used of the switch-reference markers (Walker 2000). In part, because they have evolved to serve more functions than the other sets. These suffixes are used with verbs that can take a complement clause or used with verbs that are a part of a relative clause. Complement clauses were discussed in the previous subsection with a few exceptional verbs (like *banna*), but most verbs that can take a clause as a complement have to use switch-reference, as in (85) and (86). The clause that is acting as the complement to the verb has to be marked with switch-reference, even if the subjects are marked on both

verbs, as in (85) and (86). The marked clause in these examples is functioning as the object of the verb *ithą́na* 'know,' an active transitive verb.

(85) ***Sa****sipokni****kat*** *ithą́na****li***. 'I know I'm old.'

(86) ***Sa****sipokni****ką́ ish****ithą́na***. 'You know I'm old.'

The complement clause may also have separate tense/aspect/modality marking, as in (87) and (88).

(87) (a) *Sipokni****kat*** *ithą́na*. 'She$_1$ knows she$_1$'s old.'

(b) *Sipokni****ką́*** *ithą́na*. 'She$_1$ knows she$_2$'s old.'

(88) (a) *Hilha****toką́*** *ithą́na****li***. 'I know she danced.'

(b) *Hilh****a'chiką́*** *ithą́na****li***. 'I know she's gonna dance.' (from Munro 2016)

Sometimes the translation is more natural with 'that' between the two clauses. If the arguments are expressed with overt nouns, they function as normal with expected case marking. The complement clause may precede the main clause as shown, or it may follow the main clause or be center-embedded, as in (89) (Munro 2005).

(89) (a) *Issoba-at malli****ką́*** *sashkaat pį́stok*.

(b) *Sashkaat pį́stok issoba-at malli****ką́***.

(c) *Sashkaat issoba-at malli****ką́*** *pį́stok.*

'My mother saw the horse jump.' (from Munro and Willmond 2008)

Center-embedding the complement clause occurs because this clause is functioning as the object the verb, and canonical word order is SOV. SS or DS complement clauses can be center-embedded.

The *-kat*/*-ka* suffixes also occur in relative clause constructions. A relative clause modifies one of the arguments of the verb, as in (90) and (91). (When *-kat*/*-ka* occur with past tense *-tok*, there is only one *k* in the resulting combination.)

(90) *Ihoo yammat ofi' pís-to**kat** illi-tok.*
'That woman who saw the dog died.'

(91) *Ihoo-at ofi' yamma pís-to**ka** illi-tok.*
'That dog the woman saw died.' (from Munro 1983)

In (90), the woman is the subject of both the main clause and the relative clause, and thus SS is used. In (91), the dog is the subject of the main clause but the woman is the subject of the relative clause and thus DS marking is used. Notice, though, that if both the main clause and relative clause's subjects are expressed, that the subject of the main clause does not have nominative case marking (only the subject of the relative clause, the leftmost noun, does). Relative clauses have a complex structure in Chickasaw because they overlap with the previously described case-marking system (section 2.2.2) when the subject of the relative clause is non-third person. (92) shows an utterance that can have either *-kat* or *-ka* marking on the relative clause.

(92) *Folosh honkopa-li-to**ka*** (a) / *-to**kat*** (b) *litiha-tok.*
'The spoon I stole was dirty.' (from Munro 2016)

Both versions of (92) have the same translation, but different suffixes. These Chickasaw relative clauses are marked in such a way that the clause can be considered either in relation to the subject, as same or different, with switch-reference, or as a complement of the verb, in which it is marked for case, either nominative or accusative. Thus (92a) is marked for DS with *-ka*, because the subjects of the two clauses are different ('spoon' and 'I'). While (92b) is marked for nominative case with *-kat*, because the entire relative clause is the subject of the verb *litiha*. Another way to create relative clauses is

by using the demonstratives *yammat*/*yappa*, which contain the nominative and accusative case markers -*at*/-*a*.

(93) *Folosh honkopa-li-tok yamm**at*** (a) / *yamm**a*** (b) *litiha-tok.*
'That spoon I stole was dirty.' (from Munro 2016)

While one might expect that the *yammat*/*yamma* examples always indicate case and the -*kat*/-*ka* examples always indicate switch-reference, a close look at (92) and (93) reveal that both sets can mark either relationship. In (93a), *yammat* is marking the entire clause as the subject of the verb *litiha*. But in (93b), *yamma* is marking the different subjects of the two verbs.

The switch-reference suffixes -*hoot*/-*ho* are also used in relative clause constructions in the same way that -*kat*/-*ka* are.

(94) *Ihoo sipokni**hoot** anompolitok.* 'An old woman talked.'
(Munro and Willmond 2008)

Notice that the subject of the relative clause in (94) does not receive its own subject marking in all of these different types of relative clause constructions. Quantifier and modifier verbs that can appear in relative clauses, like the verb *sipokni,* also function as normal non-active intransitive verbs, taking subjects marked nominative and inflected for tense, modality, and aspect marking (*ihooat sipoknitok* 'the woman was old') and also being able to take non-third person subjects inflected on the verb (*sasipokni* 'I'm old'). Quantifier verbs work exactly the same, except these take I agreement.

Both -*hoot*/-*ho* and -*kat*/-*ka* can be interpreted as indicating case rather than switch-reference in relative clause constructions. Thus relative clauses are an area of the Chickasaw language where the case system and switch-reference system overlap. Certainly there is a similarity between the suffixes used in both systems, since SS and

nominative markers all end in *-t* while DS and accusative markers all end in a nasalized vowel. While there is likely a historical explanation, one has as yet to be satisfactorily explained and supported (Munro 2016).

The eighth set of switch-reference markers, the 'conjunctive' markers *-cha*/*-na*, behave differently than the other seven sets of suffixes. These suffixes are often translated as 'and,' which can give the impression that they are coordinating, like the suffix *-hookya*, rather than subordinating, like the other switch-reference markers. In a coordinating clause structure, the clauses are of equal import and are generally equally structured. In other words, each coordinating clause could likely serve as its own sentence. However, the switch-reference markers in Chickasaw are by nature dependent, where the marked clause is dependent on the reference clause for whether it is marked DS or SS (Munro 2016). Like the other switch-reference marked adjunct clauses, the clauses marked by *-cha*/*-na* can only be inflected for subject and/or object and are dependent on the main clause for tense, modality, and/or aspect.

(95) *Ishmalli**cha** ishtaloowatok*. 'You jumped and (you) sang.'
(Munro and Willmond 2008)

Unlike the rest of the switch-reference markers, the attachment of *-cha*/*-na* to the verb stem requires an alteration on most verbs, one that is identical to the one described for negative verbs in section 2.3.5 (the insertion of a glottal before the ultimate syllable if the verb ends in a single consonant followed by a vowel, but preceded by an unaccented vowel) and shown in (96). Following the first person active agreement suffix *-li*, *-cha* becomes *-t* and *-na* reduced to nasalization on the vowel, as in (97).

(96) *Mali'**cha** mallitok*. 'He$_i$ ran and he$_i$ jumped.'

(97) *Mali'lil**i** ishmallitok*. 'I ran and you jumped.' (Munro and Willmond 2008)

Switch-reference is controlled by the syntactic subject in Chickasaw, and Chickasaw subjecthood has been well analyzed (Munro 1988, 1993, 1999, 2016). Briefly, if the subject noun phrase is articulated, it will always be marked with a nominative suffix, like *-at*. However, not every noun phrase marked with nominative case is a subject, due to some complex syntactic processes that can result in double nominative constructions, as described in section 2.3.5. But the syntactic subject, which in constructions like Possessor Raising is the newly derived subject, controls switch-reference marking (Munro 2016).

Multiple switch-reference markers may occur in the same utterance, involving a reference clause marked relative to another reference clause marked relative to a main clause, as in (98) (reference clauses are bracketed). Main clauses are never marked for switch-reference.

(98) [[*Amposhi' achifali**kmą***] *ishkashoocha'ni**ką***] *ithánali.*
amposhi' achifa- li- kmą ish- kashoochi- a'ni- ką ithána- li
dishes clean- 1SG.I- REAL.DS 2SG.I- dry- can- CMP.DS know.NGR- 1SG.I
'I know that if I wash the dishes you can dry them'. (Munro 2016)

Thus long stretches of discourse in Chickasaw are often marked by many switch-reference suffixes. This kind of marking has been called "local marking," where one or more clauses are marked in relation to adjacent clauses. But, switch-reference can also be used for "prospective marking," where there are multiple reference clauses dependent on the same main clause. In other words, a single main reference clause can have two (or more) marked dependent clauses. Thus a marked reference clause may either be dependent on the clause directly following it, as in (98), or on a later main clause. Additionally, local marking can occur within prospective marking. This adds

another layer of complexity when understanding long chains of switch-reference markers in discourse (Walker 2000).

When speakers are connecting many clauses with switch-reference, they seem to prefer using several SS markers over having to use a mix of DS and SS markers (Walker 2000). A preference for SS markers is likely part of the motivation for the syntactic constructions previously discussed (Possessor Raising and Applicative Subject in 2.3.5). Both constructions are frequently observed in switch-reference constructions where the derived subject results in the preferred SS clause (Munro 2016). However that is not to say that speakers do not switch between SS and DS or produce chains of DS clauses, as both are also frequent (Munro 2016). But in an analysis of Chickasaw conversation, SS markers were found to be more numerous than DS markers (Walker 2000).

2.4.3 "Paragraph-level" Switch-reference

The switch-reference suffixes function at the clause level, but Chickasaw also has some switch-reference marked words that are used for "paragraph-level" connectives. These are often used to section off discourse, such as when a topic change occurs, and thus naturally can indicate if the subject of discourse is changing or remaining the same (Munro 2005, Walker 2000). The "paragraph-level" switch-reference connectives only appear in connected discourse, and never occurred in sentences elicited in isolation (Payne 1980). The connectives include: *haatokoot*/*haatokǫ*, *hihmat*/*hihmą*, and *yąhcha*/*yąhna*, all translated as 'then,' 'and,' 'and so,' or 'so' (Walker 2000). Contrastively to what was observed with the switch-reference suffixes, the DS versions of these connectives seem to be more frequently

used than the SS ones (Munro 2005). A previous study of Chickasaw conversation found *haatokoot*/*haatoko̲* as the most frequently used (Walker 2000), and these were also the most frequently used set in the Chikasha Academy sessions. But in an analysis of Chickasaw conversation among bilingual native speakers, the instances of switch-reference suffixes far outnumbered the instances of these connective words (Walker 2000). A similar pattern was observed in the Academy sessions as well, among the speakers.

2.5 Variation

This section focuses on describing the differences in the speech of the speakers involved in the Chikasha Academy program as compared to the variety of Chickasaw described in the previous sections, which has been based on the published literature. The speakers involved in the Chikasha Academy program are more likely to, or in some cases exclusively, use the forms described in this section rather than the forms described in the previous sections of this chapter. Analyzing the source of the variation is beyond the scope of this dissertation, but a brief description is necessary to acquaint the reader with the norms of the spoken Chickasaw heard in the immersion sessions since it differs from the published descriptions. Most importantly, the variation described here is a large part of the input received by the adult learners. However, the source of the variation is another dissertation topic in itself (as mentioned previously), and the focus here is on description.

2.5.1 Agreement

Not all Chickasaw speakers use the agreement affixes as previously described. First, Figure 8 summarizes the four sets of agreement affixes described in section 2.3.

	1SG	2SG	1PL	2PL
I	*-li*	*ish-*	*il/ii-*	*hash-*
II	*sa-*	*chi-*	*po-*	*hachi-*
III	*am-*	*chim-*	*pom-*	*hachim-*
N	*ak-*	*chik-*	*kil-/kii-*	*hachik-*

Figure 8. Chickasaw agreement affixes

I affixes primarily indicate semantically active intransitive subjects and most transitive subjects. II prefixes indicate non-active intransitive subjects, most transitive objects, and a few transitive subjects. III-dative prefixes indicate indirect and direct objects as well as subjects, most of which could be viewed as semantic datives or experiencers. N prefixes are used for negative subjects on originally I set verbs. II and III-dative affixes also indicate possession on nouns, inalienable and alienable possession respectively.

The set II affixes all end in a vowel and when they attach to vowel-initial words, speakers differ in what they do[19]. Munro's descriptions outline a complicated process that has parallels in other Muskogean languages (see section 2.2.1). For example, Munro and Willmond (1994, 2008) describe that words beginning with *o* will conjugate as *as-oshi'* 'my son' and *ach-oshi'* 'your son,' as *as-okcha* 'I wake up' and *ach-okcha* 'you wake up'. Some of the speakers involved in the Chikasha Academy sessions instead say *sokcha* and *chokcha*, seeming to have dropped the initial *a*. However, many speakers do not make any changes during affixation and say *sa-oshi', chi-oshi'* and *sa-*

[19] As described in section 2.2.1, word-initial <i> is dropped when any set II prefix attaches (e.g. *ishto* 'be big,' *sa-shto* 'I'm big'), while the prefix vowel is dropped for word-initial <a> or <o> and an <a> is added to the beginning of the prefix (e.g. *ayoppa* 'be happy,' *a-chi-yoppa* 'you're happy' and *oshkabali* 'be bald,' *a-ch-oshkabali* 'you're bald').

okcha, chi-okcha, especially during careful speech. This variation could be the result of a change in the language where, when the non-productive derivational *a-* has been lost, speakers reinterpret forms like *sokcha* as a shortening of *saokcha*. Or this could be an influence from Choctaw, which does not preserve the initial *a-*, instead conjugating *o-* initial verbs as *siokchah* and *chiokchah* (Munro 1993). Thus Munro's processes have parallels in the other Muskogean languages, but simply attaching the prefixes as-is is also seen in the closely related Choctaw language.

There is identical variation with *a* initial verbs. Where Munro describes that such verbs will conjugate as *abika* 'sick' to *asabika* 'I'm sick' and *achibika* 'you're sick,' the Chikasha Academy speakers often say *sabika* and *chibika*. Again this may be a reinterpretation internal to Chickasaw or it may be influenced externally by Choctaw, which conjugates a-initial verbs as *siabikah* and *chiabikah* (Munro 1993). However, speakers who consistently use *sabika* will also preserve the original rhythmic lengthening pattern of *asabika*. Thus these speakers still lengthen the *sa* of *sabika,* after the pattern of *asabika*, rather than lengthening the *bi* of *sabika*, which would be the expected lengthened syllable if this phonological rule were applying to the surface form[20].

Verbs that are *i* initial are used as described for most speakers, although one speaker involved in the Academy, Rose, does not delete initial *i* (and will say for example say *sa-ishki'* 'my mother' rather than *sashki'*). The differences in attaching II affixes could also be interpreted as variation in applying regular phonological rules and indeed some speakers vary in their application of other regular phonological rules

[20] One speaker, Hannah, even overtly corrected a learner who was pronouncing *sabika* with the expected rhythmic lengthening pattern (*sabīka). She did not use the fuller form *asabika,* though.

(briefly described in section 2.1). For example, one speaker, Hannah, will say *ayokpánchi-li* rather than *ayokpą́shli*, which is the result of regular phonological rules that she never applies.

For all prefix sets, Munro has recorded a "special" first person plural set that has been inconsistent and difficult to describe (e.g. *iloo-* in the I agreement set), though recently Munro (2016) suggests it has an inclusive triplural meaning. In Munro's data (2016), the "special" first person plural affixes are described as rare. In the Chikasha Academy sessions, some of the speakers frequently use the active "special" plural *iloo-* and seem to differentiate between *iloo-* and *il-/ii-* in terms of number, where *iloo-* refers to a larger group than *il-/ii-*. Inclusivity does not seem to be a part of their use of *iloo-*, but this is an area of Chickasaw verbal morphology that needs further study. For speakers, the first person plural forms in all agreement sets are used to indicate any plural number of persons, both dual and triplural.

Specifically in the I agreement affix set, Munro (Munro and Willmond 1994, 2005, Munro 2016) describes that some speakers, but especially Catherine Willmond, prefer to use a *k*-form variant of the first person plural I prefixes, where *il-*/*ii-* are instead *kil-*/*kii-* in the I agreement set. Such use is most likely an innovation where the first person plural N prefixes, *kil-*/*kii-*, have been overgeneralized (Munro 2016). But, none of the speakers in the Chikasha Academy program use the *k*-forms; some of the speakers even actively reject their usage, labeling them as Choctaw forms. Some of the Academy speakers have gone so far as to never use *k*-forms, even in the production of hortatives and negatives, where they would occur regularly because those structures use the N agreement prefixes rather than the I agreement affixes.

Additionally, speakers often produce another first person plural I form, *ilii-*, which has perhaps not been mentioned by Munro as in use by speakers (it is not included in the grammar book or dictionary, Munro and Willmond 1994, 2008 or recent articles, Munro 2000, 2005, 2016). The *ilii-* form was especially common when obtaining careful speech recordings of speakers. Interestingly, **ili-* is the reconstructed Proto-Muskogean form of the first person plural I prefix (Munro 1993, Booker 1980). When **ili-* is used with consonant-initial words, the second syllable is always rhythmically lengthened, which might be why the other variants are written with inherently long vowels (*lii-*/*ii-*). Thus the speakers involved in the Chikasha Academy program employ *il-* with vowel-initial verbs. With consonant-initial verbs, the speakers use *ilii-* in careful speech, with the frequent variants of *lii-* and *ii-* in casual speech. Munro has consistently argued that Chickasaw is more conservative than Choctaw, and speakers' use of *ilii-* as analyzed here would support this (1987, 1993).

Most kinship and body part terms are possessed with II affixes, while all other nouns are possessed with the III-dative affixes (see section 2.2.1). Some kinship terms use the III-dative affixes, and those that do are always possessed and the base form of the noun never occurs (e.g. *inki'* 'father', *anki'* 'my father,' while *-ki'* does not exist in isolation) (Munro and Willmond 2008). However at least one of the speakers involved in the Chikasha Academy program uses the II affixes to possess all kinship terms, including kinship terms that already have a III-dative prefix, like *inki'*. This speaker has reanalyzed forms like *inki'* as the noun base and produces forms like *sa-inki'* for 'my father' (where this form has both a II affix *sa-* with the III-dative affix *in-*).

2.5.2 Case and Word Order

Case-marking is described as being obligatory on the subject noun but optional on the object noun (Munro 2016, Munro and Willmond 2008). In other words, the subject noun has to be marked with any of the several different nominative suffixes (described in 2.2.2). However, speakers in the Chikasha Academy program omit nominative case marking not infrequently. Munro has discussed a preference for the leftmost noun to be the syntactic subject when case marking was ambiguous (Munro and Gordon 1982), for example with relative clause constructions where the syntactic subject is not marked nominative or in double nominative constructions where both the syntactic subject and the semantic subject are marked with nominative *-at* (Munro 2016).

For the speakers involved in the Chikasha Academy program, when the subject noun appears in the canonical leftmost position, nominative case marking is not infrequently omitted. This is analogous to the frequent omission of accusative case-marking, where the unmarked object noun is acceptable only as long as it appears directly to the left of the verb, in canonical position (Munro and Willmond 1994, Munro and Gordon 1982). Whereas case-marked nouns are free to occur in other positions, they most often only occur case-marked when after the verb as an after-thought or as emphasis. However, speakers most often keep the object noun in canonical position and thus accusative case marking is rarely used (Munro 2016). The occurrence of non-case marked subject nouns in regular constructions (not the special cases of relative clauses or double nominative constructions) would seem to indicate an analogous process where nominative case marking is becoming optional as long as the subject noun is the

leftmost nominal. Chickasaw has an attested internal reliance on word order in other environments (Munro and Gordon 1982). For example with possessor raising, Chickasaw can have two (or even three) *-at* marked nouns. When there are multiple *-at* marked nouns, the leftmost is the subject. Similarly, Chickasaw can only ever have one accusative marked noun, but the other unmarked object has to occur directly to the left of the verb in the canonical object position (Munro and Willmond 2008). Thus it may have already been a part of the language to encode subject as leftmost noun and object as directly-left-of-the-verb noun, and case marking is now being reanalyzed as unnecessary and thus optional.

The process of Applicative Subject constructions, which raise the object of the applicative to subject position, creates double-nominative constructions and verbs that have both an overtly nominative-marked nominal (the old subject) and a III-dative marked subject (the new subject), or 3-at,III verbs. As mentioned, some such verbs have been reanalyzed to be III-dative subject verbs and the old subject no longer has nominative marking, and instead functions like any other object, both syntactically and semantically (see section 2.3.3). Thus the reanalyzed verbs no longer have double nominatives and only the III-dative argument is the syntactic and semantic subject. A similar reanalysis has occurred on the Chickasaw 'have' constructions for the speakers involved in the Chikasha Academy program. The 'have' constructions are created via Possessor Raising and positional verbs, e.g. *chipotaat* ***am****ánta* 'I have a child,' where the verb is a III,3-at verb. But speakers have similarly reanalyzed these verbs to be III-dative transitive verbs (III,3), where the III-dative argument is the subject and the other argument is only an object, and does not receive the nominative marking that it once

had as the “old” subject. Thus the speakers would instead say *chipota* ***am****ánta* ‘I have a child.’ Munro (1999) mentions that some speakers have reanalyzed the PR positional ‘have’ verbs to create such structures, where only the derived subject retains nominative marking, but does not mention the non-third person subject forms where only the III-dative affix is indicative of the syntactic and semantic subject.

Section 2.2.2 described how the focus case markers, *-hoot*/*-hǫ*, are used when a descriptive verb is part of a noun phrase, as in *ofi' tohbi-hǫ pisa* ‘he sees a white dog’ (Munro and Willmond 2008). However, speakers involved in the Chikasha Academy program do not use the focus case markers in this structure. Rather, the speakers used the nominative suffix *-'* to nominalize the verb and create a noun phrase, as in *ofi' tohbi'* ‘the white dog’. When the noun phrase is used in a sentence, then it may take case marking like any other noun, as in *ofi' tohbi'-ą pisa* ‘he sees the white dog’ or *ofi' tohbi'-at malli* ‘the white dog is jumping’. These speakers only use the focus case suffixes to draw attention to an argument.

2.5.3 Switch-reference and Questions

The case-marking suffixes and switch-reference suffixes have previously mentioned similarities in form. All nominative case suffixes and SS suffixes end with *-t* while all accusative case suffixes and DS suffixes end with a nasalized vowel. All of these sets of suffixes have a similar variation when used by speakers in quick and casual speech. Often the final sound of these suffixes is not clearly articulated, to where, for example, the most used switch-reference suffixes *-kat* and *-ką* are both commonly articulated as simply *-ka*. The accusative suffix *-ą* has been similarly described as being articulated with optional nasality (Scott 1981).

Speakers frequently create questions that have no overt question marking. Chickasaw has question suffixes to mark either verbs (*-taa* and *-taam*) or nouns (*-haat*/*-htą*) in addition to interrogative words (e.g. *kata* 'whom'). While rising intonation is used in English to create questions with no interrogative marking, Chickasaw employs rising intonation on most utterances and a falling intonation on questions. But speakers involved in the Chikasha Academy program often employ a rising intonation pattern to create questions with no overt question marking. In other words, these questions have no indication that they are a question other than the rising intonation pattern. For example, *ofi' pisa* could mean either 'he saw the dog' or 'did he see the dog?,' depending solely on intonation, rather than using an interrogative suffix, as in *ofi' pisataa* which can only mean 'did he see the dog?'.

2.6 Conclusions

This chapter has presented a succinct sketch of the Chickasaw language, with a focus on morphology and morphosyntax, and a further focus on the features that will figure heavily in the discussion of the data in Chapter 5. One important inclusion in this sketch of Chickasaw is the variation in the speech of the small group of speakers that are involved in the Chikasha Academy. The learners have access to and occasionally make use of descriptions of Chickasaw, most frequently one of the dictionaries (Humes and Humes 1973/2015 or Munro and Willmond 1994) and the pedagogical grammar (Munro and Willmond 2008). But the majority of the learners' input comes from the speakers involved in the Chikasha Academy program. Some of the variations found in these speakers' language are not described in the dictionary or grammar book or other publications, but have been described in this section.

Like all languages, Chickasaw has changed, is changing, and will continue to change. The variations in the speech of the speakers involved with the Chikasha Academy are likely due to ongoing processes of language change. The focus of this dissertation is not to analyze the source of every instance of variation and possible language change in Chickasaw, but a synchronic description of Chickasaw is necessary to compare against the data from the adult language learners in the Academy. The next chapter focuses on language change and how it is connected to both language acquisition and language revitalization.

Chapter Three: Language Change, Acquisition, and Revitalization

Language shift and language revitalization both impact language acquisition, resulting in language change. The first chapter included a brief language ecology of Chickasaw, focusing on the impacts due to recent contact with English. When languages come into contact, many kinds of change can and often do occur. Changes in the languages' ecologies, changes in language ideologies, and changes to the language itself. Though all interconnected, this last type of change is the focus of this chapter. In particular, I discuss how language change is connected to acquisition, how acquisition is affected by shift and revitalization, and how language revitalization mediates the effects of language change.

Endangered languages are uniquely positioned to be affected by several possible sources of language change. Language change occurs when one or more languages come into contact with each other, as Chickasaw has with English and other languages throughout its history. Language change is more likely to occur when bilingualism or multilingualism becomes prevalent in a community, particularly if many of the community's speakers experience language attrition or partial acquisition, as can happen during rapid language shift. Language change also often occurs when members of the community learn or re-learn their language through classes or increased contact with speakers, creating new speakers (or neo-speakers) of the language, which is the goal of language revitalization. Many communities around the world, especially immigrant and diaspora communities, can experience some of the aforementioned types of language change. But when endangered languages experience these changes, scholars believe the changes occur on a larger scale and at a more rapid rate (Aikhenvald 2002,

Romaine 2010). Furthermore, only for endangered languages does language change affect the entire speech community, which is usually small, and shape the future of the language, since the changes impact the way that the new speakers will speak their language.

Language change and language acquisition, though separate fields of research, are complexly intertwined. A language changes when variation accumulates through time and changes persist through time when they are passed on between generations, or in other words, when they are acquired by the younger generations. Rapid language shift disrupts natural language acquisition and creates other kinds of acquisition, like partial acquisition. Research in language change analyzes how different types of language acquisition cause different types of change in situations of language shift (Mithun 2015, Meisel et al. 2013, Romaine 1989, 2010). This chapter focuses on bringing these discussions into a framework focused on endangered languages and language revitalization.

The first part of this chapter describes common types of change associated with language contact, found when different language speech communities reside or become geographically near to each other and when at least some of the community is bilingual or multilingual. The discussion of language change focuses on how rapid language shift changes how language acquisition occurs in a speech community and causes several different identifiable types of acquisition, which are often the source of language change. The second section of this chapter focuses on how language revitalization efforts can re-shape an endangered language speech community as they begin to (re)negotiate and (re)determine language norms through adult language acquisition.

3.1 Language Change in Endangered Languages

Language change is a large field of study. In this section, I focus on studies of language change in endangered languages, specifically of morphology and morphosyntax and Native North American languages. Language change is not unique to endangered languages. All types of change described in this chapter also occur in non-endangered languages. But in endangered languages, changes are believed to both occur more rapidly and affect more of the language than in non-endangered languages (Aikhenvald 2002, Hinton and Ahlers 1999). These trends relate to rapid language shift, which perhaps unsurprisingly causes a more rapid rate of language change. Researchers have observed that many endangered language communities experience a higher amount of change compressed into only one or two generations (Schmidt 1985). Similarly, the effects of the changes are more deeply felt in these small close-knit speech communities. However, changes observed in endangered language are often found to have begun occurring prior to the language becoming endangered (Aikhenvald 2002, 2006a).

Many aspects affect how and why language change occurs. Language change studies often tease apart context, sources, mechanisms, and contributing factors of change. Many endangered languages, and furthermore many Native North American languages, share commonalities across these aspects. Most Native languages are the minority language in their geographic area, with English as the dominant language; most are spoken by a small, tight-knit, and largely rural speech community; most have experienced rapid language shift, though to varying degrees; most find their most fluent speakers in the eldest generation(s) with younger generations being less or not fluent in

the Native language; and most have at least some members of the community who harbor negative ideologies about speaking their language. All are true for the Chickasaw community. Many of these circumstances are changing due to language revitalization efforts, but their presence has impacted the recent past and they are still commonly faced issues in most Native communities.

Language change is a complicated field of study, where researchers have found more questions than answers and more tendencies than rules (Thomason 2010). Researchers are often unable to fully explain the mechanisms and source(s) of most known language change and they are generally unable to predict future language change (Thomason 2010). However, researchers can describe the contexts in which certain changes occur, and in which certain changes are more or less likely to occur, in addition to which mechanisms and sources are usually behind certain changes (Thomason 2010). This section overviews some of the known trends of language change, with a focus on morphology and morphosyntax, and specifically changes that are attributed to language shift. First, I discuss the contexts of language change due to language contact with a focus on rapid language shift and language revitalization.

3.1.1 Contexts of Change

There are over 7,000 languages spoken in the world, all in some degree of contact with other languages. Rarely do languages come into contact without affecting each other's languages and/or cultures (Ansaldo and Lim 2016). Considering the number of languages, there is a nearly infinite number of different language contact contexts, each with their own resulting language changes. Language change studies seek to find commonalities across contexts. Language change is a large field of study

and in this section I focus on language change studies of endangered languages specifically and how they share commonalities across contexts that make them likely to change in similar ways. Importantly, language change never occurs in a vacuum, and all changes in a language are intimately connected to the language's ecology, just as changes to a person's idiolect are connected to their life history.

Language contact always causes language change, but the exact effects on the language depend on the context of the change. Two important factors are the length of contact and the relative sociolinguistic positions of each language. In language contact literature, the language with relatively higher sociolinguistic status is called the "superstrate" while that with lower status is the "substrate."[21] The asymmetrical sociolinguistic positions affect the results of language contact in somewhat predictable ways. For example, politically dominant languages usually influence less dominant ones (Aikhenvald 2006a). In some situations, political dominance and social prestige are not always bound together, but they often are bound up in the majority, or superstrate, language in endangered language communities. The majority of endangered languages are the substrate language in a contact situation since the superstrate language has become the dominant language that most speakers have shifted to and, for many communities like Chickasaw, that everyone is bilingual in.

Shared features between languages are due to either genetics (internal), contact (external), or, very rarely, to pure chance. Past language change studies often divided types of change by whether they were internal or external. Internal language change occurs wholly within the language itself, due to processes internal to the language, and

[21] The terms "superstrate" and "substrate" are perhaps more commonly used in discussions of pidgins and creoles, but here I am only using these terms in discussion of all language change.

monolingual speakers are usually the source (Hickey 2010). External language change occurs when speakers of different languages come into contact and this contact causes changes in one or more of the languages. For this reason, external changes are also often called contact-induced changes. If a change occurred in a language in the past without historical records to consult, researchers cannot always definitively determine whether the change was internal or external, or a mixture of both. For under-documented languages that have little historical data, which includes most endangered languages, scholars are much less likely to ever be able to untangle the source(s) of changes (Aikhenvald 2006a). Most Native North American languages have traditionally been oral languages, without writing systems, and scholars have long been debating the source(s) of their changes.

Language change is often divided between unilateral, where one language causes changes in another, and multilateral, where multiple languages cause changes in each other (Aikhenvald 2006a). Unilateral language change is often observed in cases of rapid language shift, where the dominant language affects the shifting language. Multilateral language change is commonly found in language areas, where the languages all develop shared features called areal features. Chickasaw has experienced both of these kinds of changes, unilateral change due to rapid language shift with English and multilateral change with the languages of the Southeastern language area. In discussing mechanisms of change, where possible, I use examples from these two types of change in Chickasaw.

The entire Muskogean language family originally resided in southeastern North America as part of a language area. A language area refers to a geographic region where

several languages remain in contact for a long, stable period leading to all of the languages developing similar external features through contact-induced language change. Changes that spread over a large geographic area and affect multiple languages are referred to as diffusion. In addition to the Muskogean languages, the Southeastern language area included Cherokee, Nottoway, and Tuscarora (Iroquoian), Caddo (Caddoan), Tawasa and Timucua (Timucuan), Biloxi, Catawban, Ofo, and Tutelo (Siouana-Catawba), and several language isolates: Atakapa, Chitimacha, Natchez, Tunica, and Yuchi (Martin, ms.). Languages in a language area have all changed each other due to long and intense language contact. Because most Native North American languages have few written records, untangling internal and external features is particularly complex in language areas that have experienced a long period of diffusion. For example, Chickasaw and Choctaw have a large number of common features because they descend from the same parent language. Linguists believe that Chickasaw and Choctaw were once one language spoken by one community up until approximately 500 years ago (Martin, ms., Broadwell 2006). However, they have also been in contact with many of the same languages as part of the Southeastern language area and thus some of their similar features could be either internal or external features.

Changes in endangered languages are often described as having been in the process of occurring but then were "sped up" by rapid language shift (Romaine 1989, Aikhenvald 2002, 2006a). Often a language may have been in the process of internal changes that were simply reinforced by similar contact-induced changes (Aikhenvald 2006a). While early studies sought to blame all changes in endangered languages on rapid language shift, more nuanced studies often found multiple plausible explanations

(Cook 1995, Aikhenvald 2002, 2006a). Today, most contact linguistics scholars believe that a full explanation of language change involves a complicated mix of external and internal changes and that most changes do not have a single cause (Thomason 2010). In fact, some have even questioned the usefulness of always adhering to the internal-external dichotomy (Aikhenvald 2003). Multiple causation – where multiple motivations were involved in a change – is the more common conclusion in modern language change studies (Aikhenvald 2006a).

Because the entire Muskogean language family was part of the Southeastern language area, researchers have struggled with definitively identifying internal versus external features. In other words, shared features by the whole Muskogean family are likely due to their genetic affiliations, but their being in close contact for hundreds of years as part of the Southeastern area is also a viable source for some features. Due to this ambiguity, the exact genetic classification of the languages within the Muskogean family was under debate until recently (Martin 1994) and whether Muskogean is related to other Southeastern languages, like Natchez, is still uncertain (Kaufman 2014). Untangling genetic (or internal) features from external features is one of the most difficult tasks in historical linguistics (Aikhenvald 2006b).

Thus far, I have only mentioned bilingualism in the context of rapid language shift, but it is important to note that many communities around the world have (or have had) stable bilingualism or multilingualism. In such contexts, the languages may continuously experience contact-induced language change, either unilateral or multilateral, without either language becoming endangered. Whether or not the situation is stable depends on what proportion of the population and what social groups are

bilingual or multilingual (Aikhenvald 2006a). Balanced bilingualism often promotes language diversity and maintenance, while unequal bilingualism promotes language shift and attrition (Mithun 2015). Balanced, stable contact can promote diversity, increasing complexity in both languages as they develop new patterns and borrow forms and structures from each other (Aikhenvald 2006a, Mithun 2015). The different effects of the different types of bi/multilingualism relate to the different types of language acquisition.

3.1.2 Sources of Change

Language change essentially involves two steps: an innovation and the spread of that innovation (Thomason 2010). Someone must initiate the change by an innovation in their speech and then that new variation must be spread to the rest of the speech community in order for the language to change. There are different ways for a speaker to develop an innovation and then different means for the innovation to spread. Not all innovations in the way that a single person speaks - called their idiolect - spread to or are accepted by the rest of the speech community. Additionally, a change may only spread to part of the speech community and create a dialect. But, who initiates the change often determines the kinds of changes that are likely to occur. Recall the discussion of speaker types in Chapter 1, that range on a fluency continuum from more fluent in the one language to more fluent in the other language: monolingual, bilingual, heritage speaker, and rememberer. Each of these different speaker types are more likely to be the source of different types of language change. In describing the different types of language change in endangered languages, I focus on their likely sources in terms of speaker types.

Any type of speaker can be the source of contact-induced language change, but bilinguals and heritage speakers are often the most responsible, and each are more likely to be the source of different types of change. The differences in the types of change associated with speaker types lies in the different ways that the speakers experienced language acquisition. In all speech communities, children naturally acquire their primary language(s) through a process called first language (L1) acquisition. In multilingual contexts, children acquire more than L1 at the same time. Many people will also acquire or learn subsequent languages, which are referred to as second languages (L2s). However, language shift creates other kinds of acquisition, including partial acquisition and de-acquisition (also called attrition). Each type of acquisition is responsible for different types of speakers, and different types of change. While some of these types of acquisition were mentioned in the first chapter, this section more fully describes the different acquisition processes and how they are sources for language change.

Chapter 1 discussed the importance of intergenerational transmission, how it is both the crucial turning point in language shift and the ultimate goal of most language revitalization programs. L1 acquisition is one type of intergenerational transmission. The end result of natural, uninterrupted L1 acquisition is always a native speaker (barring any individual cognitive or development problems). In bilingual or multilingual communities, children can grow up naturally bilingual or multilingual by acquiring more than one L1 or by acquiring or learning subsequent languages as L2s. Any language that is acquired or learned after the L1 is a L2, even if this occurs during childhood through natural language exposure. The resulting linguistic abilities of L2

acquisition are different than those of a monolingual speaker, as the two processes result in different speaker types, one monolingual and the other bi/multilingual. L2 acquisition is often credited as the source for language change, especially changes to morphology and morphosyntax (Meisel et al. 2013).

The success of acquisition depends largely on input, which refers to the specific language that a person encounters when they are learning or acquiring their language. The quantity, quality, and frequency of the input has the largest impact on the resulting type of speaker (although many other factors are also involved). Changes in the quantity, quality, and frequency of input can have long-lasting effects on a person's L1 and L2. In terms of quantity, children need a certain threshold of input to reach native-like linguistic abilities, and more input has been correlated with improved linguistic skills later in life, in addition to improved cognitive skills that impact academic success (O'Grady 2017). In terms of quality, increased speech directed specifically at the child, as opposed to speech that the child simply overhears, is believed to improve linguistic development (O'Grady 2017). Furthermore, children need frequent input, both stable and continuous, in order to avoid attrition. A child cannot be considered secure in their L1 or L2 unless they receive a sufficient amount of quality input that continues throughout childhood and well into adolescence (O'Grady 2017). Researchers believe it is a linguistic universal how input affects acquisition.

While uninterrupted L1 acquisition(s) will always create speakers, there are many circumstances under which a person's path to acquisition can be disrupted. One of these circumstances is language shift, which as described in Chapter 1, has a large impact on language acquisition. Language shift disrupts natural L1 acquisition(s), often

altering the quantity, quality, and frequency of input. When a person has knowledge of two languages, they may sometimes use the knowledge of one language to influence how they speak the other, and this is called transfer. Heritage speakers, who are usually dominant in the majority or superstrate language, may make use of that language's lexicon, phonology, grammar and/or discourse to fill in the gaps of their knowledge in the endangered language, resulting in a large amount of transfer (Sasse 1992). If a community develops a large number of heritage speakers, the transfer effects in their language could lead to language change.

Within bi/multilingual contexts, children may experience either mutual or successive bi/multilingualism (Meisel et al. 2013). Recall from the first chapter that the Chickasaw community shifted to being mostly bilingual around the turn of the twentieth century. Mutual bilingualism refers to a child receiving balanced input in both languages, so that they acquire both simultaneously as their L1. In successive (also called sequential) bilingualism, a child initially acquires the L1 and then is exposed to input in a L2. The linguistic abilities of a bilingual are not the same as two monolinguals in each language. In other words, a bilingual is not a single person with the same knowledge of two monolinguals inside their head. The renegotiations in language use that occur when a community shifts from monolingualism to bilingualism affect change in the languages. An important fact to consider here is that most of the world is bilingual or multilingual, and in fact monolingualism is less common (Saville-Troike 2006).

While both mutual and successive bilingualism result in bilingual speakers, as long as input in both languages continues, research has shown that in successive

situations, the L2 almost always shows more signs of transfer from the L1. In other words, successive bilingual children usually speak their L2 using some knowledge of the L1, resulting in differences in how they speak the L2 compared to both monolingual speakers and mutual bilingual speakers, who in turn differ from each other in how they speak the language. Even in mutual bilingualism, where the child receives input from both languages beginning before the age of three or four, the quantity and frequency of input still impacts resulting linguistic abilities (O'Grady and Hattori 2016). Research has found that truly balanced mutual bilingualism is rare, and instead most bilinguals are more comfortable and fluent in the language in which they received the most input, which is their dominant L1 (O'Grady and Hattori 2016). While absolute figures are difficult to find, some research has suggested that in unbalanced bilingualism, children need to receive at least 25% of their input in any language in order to secure native-like linguistic abilities (O'Grady and Hattori 2016).

Language change in a bilingual's L2 is often attributed to the age of onset of acquisition, which refers to the age at which a child begins receiving input in a language. If the age of onset of language acquisition is past the age of 5, on average, the person's use of the L2 will show some transfer from the L1 (Meisel et al. 2013). The influence may be minimal, such as having a slight accent, or it may be extensive, such as having quite a different grammar of the language. The degree of change depends on many factors, chiefly the age of onset of acquisition, since the effects of transfer have been found to increase between the ages of 4 and 16, and then remain relatively stable if acquisition begins after the age of 16, even if the learners receive full immersive input (Meisel et al. 2013). In other words, even if the quantity and quality of input are not

lacking, as in situations where a child or adolescent moves to an entirely different language community and stops all use of their L1, the age of onset of acquisition still impacts their development and changes usually occur in the L2 (O'Grady and Hattori 2016).

Partial acquisition occurs when a child's input is interrupted before they are secure in their L1. Partial acquisition results in what has often been termed heritage speakers in language acquisition research, and semi-speakers in language revitalization and documentation literature. Heritage speakers have a wide range of linguistic abilities, depending on how early their acquisition was interrupted and whether or not their acquisition ever re-started. What a speaker who was affected by partial acquisition knows depends on how much acquisition they experienced as a child, specifically whether their acquisition was just interrupted or whether it was random (Sasse 1992). Interrupted acquisition implies that as a child the speaker was raised in a home where they were acquiring the language naturally, through a sufficient amount of quality input, but then they were "interrupted" to an English monolingual or dominant situation, such as a boarding school, and their acquisition of their language stopped (Sasse 1992). Random acquisition implies that the child grew up in an environment where the language was used non-daily, perhaps only around certain family members like grandparents or only in certain contexts, such as at church (Sasse 1992). But these situations are as varied as the individuals who live them and create a similarly varied range of linguistic abilities.

A speaker whose acquisition was interrupted could restart their acquisition if they re-enter their speech community, or their knowledge could experience attrition if

they do not. Whatever allows children to rapidly acquire their L1 also allows them to rapidly de-acquire that language if the input ceases (O'Grady 2017). There are far fewer studies of language de-acquisition, or language attrition, than of language acquisition (O'Grady 2017). Though studies are few, the results suggest that young children, under the age of 9, lose their abilities in their L1 in a matter of months once they move to a monolingual environment in a different language (O'Grady and Hattori 2016). The longer they remain without input in their L1, the less likely they are able to ever recover their linguistic knowledge (O'Grady and Hattori 2016). Such research explains why the boarding schools were so effective in increasing rapid language shift in Native North American communities.

How to re-activate linguistic skills that have undergone attrition or what linguistic skills are retained after language shift is a large part of the field of heritage language studies. Important factors include the age at which input ceased, that is the age at which shift occurred, and the amount of time that lapses before re-exposure (O'Grady 2017). Many studies show successful recovery of a childhood language if re-exposure occurs before adolescence (O'Grady 2017). If the exposure was only limited to early childhood and reactivation does not occur until adulthood, then adults are less likely to be able to reactive much of their lost knowledge. Although not all linguistic abilities may have been lost, as studies have shown that such adults may retain some ability to distinguish phonetic contrasts (sounds) in their childhood language (O'Grady 2017).

However, if the heritage language was maintained into adolescence, then fell into disuse, then adults are able to retain a high level of proficiency (O'Grady 2017). If the L1 is used throughout childhood and into adolescence, then research has shown that

adults are relatively resistant to most attrition and that even after many years of not using their language, they can quickly become comfortably communicative again (O'Grady and Hattori 2016). The reactivation of latent linguistic abilities explains how many endangered language communities have speakers today, even though the speakers often did not use their language for many years during their adult life. In language documentation and revitalization literature, these speakers are sometimes called 'rusty speakers,' since they can quickly reactivate their linguistic abilities under the right circumstances (Sasse 1992). Often, language revitalization efforts have been found to be just the right circumstances to transform a rusty speaker back into a fluent speaker.

How exactly language change occurs, that is how an innovation (or change) spreads from one speaker to the rest of the speech community, occurs through language acquisition. In the past, scholars suggested that when adult speakers begin using new forms and structures, often in competition or variation with native forms and structures, that children acquire the new forms and use them exclusively, thus changing the language (Meisel et al. 2013). While this may explain some changes, others have argued that adult speakers cannot alter their own internal grammar in many of the fundamental ways that have been observed, especially morphological and morphosyntactic changes (Meisel et al. 2013). Recent language change studies have attributed such fundamental language change largely to adult bilingual and heritage speakers, particularly changes in morphology and morphosyntax (Meisel et al. 2013, Mithun 2015). The adults partially acquire or learn the language and in doing so create specific kinds of change, which then their children acquire naturally, thus changing the language. In order for such languages to spread to the entire speech community, there needs to be a significant

population of adults who partially acquire or learn the language, as has been found to occur during language shift. The next section describes the mechanisms of change and includes examples of language change usually attributed to bilinguals or heritage speakers. Where possible, examples are of changes to morphology in Chickasaw or another Native North American language.

3.1.3 Mechanisms of Change

Because the field of language change originated in the study of historical linguistics, language change is most often studied by examining the results of change and then working backwards to understand the source(s) and mechanism(s). Different changes are understood as being the result of one or more mechanisms of change, though the change itself is often much more easily identified than the mechanisms behind the change. The most common mechanism of language change is borrowing, which refers to the incorporation of parts of one language into another. Every mechanism of contact-induced language change could be defined as essentially a different type of borrowing, since one language is essentially 'taking something' from the other. Any part of a language can be borrowed: lexicon (vocabulary), phonology (sounds), morphology (grammar), or discourse (styles of speaking). While any part of a language *can* be borrowed, there are general tendencies about what parts of a language are more likely to be borrowed and how they are likely to be borrowed. In general, the substrate is more likely to borrow from the superstrate and words are borrowed more easily than affixes (Aikhenvald 2006a). Borrowing is often subdivided based on what is being borrowed, how it is being borrowed, and how extensive the borrowing is.

Languages borrow two things: forms and structures (Aikhenvald 2006a). The form refers to how a notion is expressed in a language, like a word or phrase. For example, the Chickasaw word *tili'ko'* means 'flour, and it was created by borrowing the Spanish word *trigo* for 'wheat' (Munro and Willmond 1994, Bronwn 1998). A structure can be borrowed when a language borrows the notion that is being expressed, without necessarily also borrowing the form, or how it is expressed. For example, a language may borrow not the form of a word, but rather the pattern used to create it. The Chickasaw word *ofi' palli'* literally means 'hot dog[22]' and refers to the same thing as the English word. Rather than borrowing the form of the phrase, as happened with the previous example, Chickasaw borrowed the pattern used to create that phrase. Words created like *ofi' palli'* are referred to as calques, or loan translations. Calques are most frequent among bilingual speakers, since calques require knowledge of both languages to create and understand (O'Shannessy 2011).

Lexical borrowing often involves items (originally) found only in the other culture, as shown by the two Chickasaw examples. In a sense, the language is borrowing both the word and the item all at once from the community that introduced this new knowledge. If the language contact is brief, usually only cultural forms are borrowed between languages, more commonly by the substrate from the superstrate. The borrowing of cultural forms is also commonly done by all speaker types, including fluent speakers (Thomason 2010). Non-cultural lexical borrowing refers to borrowing

[22] Chickasaw modifiers follow the noun, so the structure of this phrase is not completely borrowed; *ofi'* means 'dog' and *palli'* means '(something) hot.' However, there are examples of calques where the word order has also been changed to match the English. The dictionary (Munro and Willmond 1994) has the entry *alba pishokchi'* for 'milkweed,' another calque from English (where *alba* = 'plant' and *pishokchi'* = 'milk'). Listed as a variant form is *pishokchi' alba*, which matches the English pattern exactly.

words not for new cultural concepts or items, but for items and notions that already exist in the language's lexicon. This type of borrowing usually indicates a more prolonged or intense contact situation, and is more common in the substrate than the superstrate (Thomason 2010). If the community is mostly monolingual and only learning the superstrate as an adult later in life, lexical borrowing, either of forms or structures, is the most likely type of change (Aikhenvald 2006a). In addition to length of contact and sociolinguistic situation, other factors may push this type of borrowing, like ideologies about the languages involved or ideologies about borrowing. Speakers are often more aware of lexical borrowings than other borrowings, so if the speech community is adverse to borrowing, lexical borrowing may not occur but other types of borrowing often do (O'Shannessy 2011). The non-linguistic variables that affect language change are discussed in detail in the next section.

Languages can also borrow grammatical forms. While in general words borrow more easily than affixes, many languages have borrowed affixes from each other (Aikhenvald 2006a). Affixes that are more transparent and clear, that is affixes with one meaning, clear boundaries, and few morphophonological alterations, are more likely to be borrowed (Aikhenvald 2006a). For example, Chickasaw, Choctaw, and Biloxi (a Siouan language once spoken in the Southeast) all have an identical suffix *-ka*[23] that has an identical meaning and similar function in all three languages. Since Chickasaw and Choctaw are closely related, their shared affix is likely a genetic feature. But Biloxi is not a Muskogean language and the other languages in its family do not share this affix, so the affix is likely due to borrowing, which is plausible given that Biloxi was in close

[23] This is a different-subject marker in the switch-reference system in all three languages. Switch-reference in Chickasaw is described in section 2.4.

contact with Chickasaw and Choctaw when all were spoken in the lower Mississippi River valley of southeastern North America (Kaufman 2014).

However, another outcome of language contact, called code-switching, can appear similar to borrowing. Code-switching refers to when bilingual speakers switch between their languages in a single utterance, but it is noticeably distinct from borrowing because the bilinguals do not (significantly) alter the pronunciation of the words or affixes in either language (Aikhenvald and Dixon 2006). Borrowed forms are altered to conform to the phonology of the other language, as in the Chickasaw example of *tili'ko'*, which is pronounced quite differently than the original Spanish *trigo*. Additionally, most bilinguals are aware of code-switching, that is they are aware of which language each form belongs to, but borrowed forms often become fully incorporated as part of the language (Aikhenvald and Dixon 2006). For example, Chickasaw *tili'ko'* is not thought of as a "Spanish word" by speakers but rather has been fully incorporated into the Chickasaw lexicon. Bilinguals code-switch for a wide variety of reasons, including to fill in a lexical gap, for example with cultural borrowing when one language does not have a word for a new item or concept. Chickasaw speakers, being all bilingual today, code-switch into English, often to fill such lexical gaps but also for other reasons (Walker 2000).

Extensive use of the superstrate's non-cultural, core vocabulary in place of the substrate's words usually indicates either a large number of bilingual speakers, who are borrowing because of code-switching, or of heritage speakers, who are borrowing because of transfer (Sasse 1992). Transfer, referring to a reliance on the L2 to fill in gaps in knowledge of the L1, is functionally identical to borrowing but with slightly

different motivations by the speaker. For example, Chickasaw has two names for the milkweed plant, which is indigenous to both their current territory in Oklahoma and their homelands in the Southeast. One name, *nochi'*, is cognate to the form found in the closely relate Choctaw language (Munro and Willmond 1994). The other form, *alba pishokchi'*, is a calque from English (where *alba* is 'plant' and *pishokchi'* is 'milk'). The calque must have been created by bilinguals or heritage speakers, since it required knowledge of the English structure. A bilingual may have created the calque due to a lexical gap or a desire to creatively play with both languages, while a heritage speaker may have created the calque due to transfer. As mentioned in Chapter 1, the line between speaker types is not always clear and as mentioned in the first section of this chapter, the source of language change is not always discernable. But more important than the source of the phrase *alba pishokchi'* is the fact that many Chickasaw speakers fully accept this form as the term for the plant today.

Many communities do not accept or are resistant to language mixing in the sense of borrowing a large number of forms (Aikhenvald 2003). For example, Chickasaw has relatively few loanwords. Of the approximately 13,500 entries in one of the dictionaries (Munro and Willmond 1994), about 200 are identified as loanwords or possible loanwords. Half come from the closely related Choctaw language and a little less than half from English, with few words from Spanish and French. Considering the Chickasaw history of contact with each group, this distribution is unsurprising. By contrast, the English lexicon is estimated to be three quarters loanwords (Ansaldo and Lim 2016). Accepting or being resistant to loanwords is neither "good" nor "bad," but rather specific to different languages and their histories of contact and shift. Languages

that are resistant to borrowing forms will still, during intense or prolonged language contact, borrow lexical, grammatical, or discourse structures from the other language(s) (O'Shannessy 2011, Aikhenvald 2003). In fact, languages with few borrowed forms tend to have many borrowed structures (Aikhenvald 2006a).

Structural borrowing refers to the spread of a structural feature from one language to another. Lexical structural borrowing has already been described, but grammatical and discourse structural borrowing also occurs. A language may borrow both the grammatical or discourse structure and associated form(s), or the structure may be borrowed without any of the associated forms (Aikhenvald 2006a). There are several distinct mechanisms that are essentially different ways of borrowing a grammatical structure. Two common mechanisms are reanalysis and reinterpretation (Aikhenvald and Dixon 2006). The previous chapter included several examples of these two mechanisms (see 2.3.1, 2.3.2, or 2.3.3).

Reanalysis occurs when a morpheme's underlying structure is changed, without necessarily changing the surface form or its meaning (Aikhenvald and Dixon 2006). A common reanalysis involves losing productivity of a once-productive morpheme, where the surface form is reanalyzed to be a simple stem rather than being analyzable as a stem and morpheme (Aikhenvald and Dixon 2006). For example, Chickasaw once had productive verb suffixes that derived different passive and causative verbs, resulting in the present-day v1-v2 verb pairs, described in the previous chapter (section 2.3.2). Verbs that were originally a combination of a stem and derivational suffix, as in *tah-a* 'be finished' and *tah-li* 'finish (it),' have been reanalyzed as just the verb stems *taha* and *tahli*. However, many of these verb pairs have maintained their original meanings.

In other words, speakers no long use the suffixes *-a* or *-li* to create new words, because they have reanalyzed the underlying structure of all verbs with these archaic suffixes to be just simple verb stems.

Reinterpretation refers to changing the surface manifestation of a pattern without significantly modifying the underlying structure (Aikhenvald and Dixon 2006). For example, in the previous chapter, the discussion of the variation in the affixation of the non-active pronominals to vowel-initial words included an example of possible reinterpretation (section 2.5.1). A common example of morphological reinterpretation is when the meaning of a particular morpheme in one language may be slightly extended to better fit the meaning of an analogous morpheme in another language. This mechanism is also called grammatical calquing or extension (Aikhenvald 2002). For example, one speaker of Chickasaw seems to have reinterpreted the nominal suffix *-akookya*, which means 'too' or 'also.' This speaker has extended the suffix to also be usable with verbs, to create constructions like *satikahbiakookya* 'I'm tired, too.' The extension may have been influenced by analogy to English, although that conclusion is by no means certain.

Reinterpretation most often occurs together with reanalysis (Aikhenvald and Dixon 2006). In other words, analyses of language change most often find both a reinterpretation of the surface patterns in combination with a reanalysis of the underlying structure. Examples of reinterpretation and reanalysis were numerous in the previous chapter (especially the discussion of dative agreement, section 2.3.3). Another example can be found in Biloxi, which was part of the Southeastern language area with Chickasaw. Biloxi has a phrasal coordinator *ha*, translated as 'and,' but in order to be

more analogous to the structures of Chickasaw and Choctaw, the meaning of this particle was extended (Kaufman 2014). Chickasaw has a switch-reference system, which uses suffixes to indicate whether two adjacent clauses are talking about the same or different subjects (this system was described in the previous chapter, section 2.4). Biloxi extended the phrasal coordinator *ha* to mean not only 'and,' but 'and (same subject)'. Biloxi then borrowed the Chickasaw (or Choctaw) suffix *-ka*, a different-subject switch-reference marker, as the particle *ka* to mean 'and (different subject),' resulting in *ha* being reanalyzed as part of Biloxi's new switch-reference system (Kaufman 2014). Thus Biloxi developed an analogous grammatical feature to Chickasaw and Choctaw through borrowing, reanalysis, and reinterpretation.

There are two specific types of reanalysis, the opposite mechanisms of grammaticalization and degrammaticalization. Grammaticalization occurs when a form in the language becomes more obligatory (or grammaticalized), for example turning a word into an affix, or an optional affix into an obligatory affix. Grammaticalization often occurs when a language develops a parallel or analogous grammatical category with the other language and in doing so, grammaticalizes an existing form. Grammaticalization necessarily involves reanalysis, since the underlying structure is changed (Aikhenvald and Dixon 2006). The opposite trend, degrammaticalization, has also been observed, where for example a language changes an obligatory affix into an optional affix or an affix into a free-standing word. Lexicalization is an example of degrammaticalization, where a grammatical feature instead becomes lexically determined. The example of the v1-v2 verb pairs in Chickasaw is an example of

lexicalization, since the previously grammatically marked features of causative and passive were instead lexically indicated (see section 2.3.2).

Language change can result in either the expansion or reduction of grammatical features. Changes in grammatical features are often dependent on the characteristics of the languages involved. Linguistic factors that influence language change are discussed in the next subsection. Grammatical features are often reduced by the disuse of a grammatical distinction, category, or affix in a language. The example of the disuse of the suffixes used to create v1-v2 pairs in Chickasaw is an example of grammatical reduction. Reduction can also occur by overgeneralization, also called leveling. Overgeneralization refers to the overuse of a grammatical feature, often ignoring exceptions and irregularities in paradigms resulting in the reduction of allomorphy. The previous chapter mentioned an example of overgeneralization in the discussion of variation in the speech of the speakers involved in the Chikasha Academy (section 2.5.1). One speaker has regularized, through overgeneralization, the patterns of alienable and inalienable possession with kinship terms.

Another mechanism of change is accommodation, which refers to speakers noticing a superficial similarity between the languages in contact and then causing changes based on the perceived similarity (Aikhenvald 2003). Accommodation can result in either a reduced or increased use of the similar feature, depending on whether that feature is perceived negatively or positively by the contact speech community. For example, one type of accommodation is lexical avoidance or aversion, where speakers avoid the use of a form in their language because it sounds like an offensive term in the other language (Palosaari and Campbell 2011). For example, the Chickasaw word for

‘turkey’ was at one point *fakit*, which is now described as a “taboo” word that is not used by speakers, who instead say *chaloklowa'* (Munro and Willmond 1994), because *fakit* sounds similar to an offensive phrase in English. Accommodation can also occur with grammatical features, where speakers reinterpret a native morpheme that seems phonetically similar to one in the other language, so that the native morpheme parallels the function of the other language's morpheme (Aikhenvald 2003). The source of accommodation is most commonly bilingual speakers (Aikhenvald 2003).

When forms and patterns are borrowed, they may take up novel space in the language or they may coexist, replace, or merge with original forms or patterns. In other words, borrowing does not occur in a vacuum, and borrowing can often set off a series of chain reactions in the language. Borrowed forms and structures, even if they ultimately replace or merge, often begin by coexisting. The coexistence creates language variation, since the language now has at least two acceptable ways of saying the same thing. If the coexisting forms and structures are interchangeable, they may be said to be in free variation or to be lexically or grammatically parallel. A commonly observed example occurs with case-marking and word order (O’Shannessy 2011, Romaine 2010, Palosaari and Campbell 2011). If a language begins to rely on word order instead of case-marking, the use of case-marking and the use of a fixed word order may initially occur together in free variation. This variation leads speakers to reanalyze the once obligatory rule of case-marking arguments as being an optional rule (which results in the degrammaticalization of the case suffixes). If then the word order structure is used much more frequently than case-marking, the case markers may

become forgotten and then ultimately lost. Such a change occurred in English, which once had case-marking and did not have the fixed SVO word order that it has now.

When languages are in contact, and a significant portion of the speech community has competence in the other language, the languages may gradually become more like each other over time (Aikhenvald 2003). The net result of prolonged bilateral change is referred to as convergence. If contact is prolonged and intense enough, the languages involved may develop structural isomorphism, where the grammar and semantics of one language have been nearly fully replicated in the other (Aikhenvald 2003). To reach this, the language has usually created new forms and structures via grammaticalization and/or reinterpreted and reanalyzed old forms and structures (Aikhenvald 2003). Convergence can only happen if speakers are proficient in both languages involved (Aikhenvald 2006a). Thus the source of convergence tends to be bilinguals or heritage speakers, who change the language they speak less often, called their non-dominant language, to be like the language they speak most often, their dominant language (O'Shannessy 2011). Convergence is particularly common in linguistic areas, where languages borrow features back and forth and become more structurally similar (Aikhenvald 2006b). Areal features may be considered a minor form of convergence while structural isomorphism is more intense. In some linguistic areas, scholars often cannot determine what features are internal to a language or even an entire language family and which are due to contact, and in fact may never be able to figure it out (Aikhenvald 2006a). This is the case for almost all language families in Australia (Aikhenvald 2006a) and for several languages and language families in parts of Native North America (Mithun 2010).

3.1.4 Facilitating Factors

Many factors affect how languages in contact influence each other, regardless of what mechanism of change may be likely to occur. A variety of factors influence the outcomes of language change: general cognitive factors (innate to all people), linguistic factors (specific to the languages involved), social factors (specific to the speech communities involved), and affective factors (specific to the individuals involved). This section describes some of the linguistic, social, and affective factors found in endangered language contexts. In terms of linguistic factors, frequency, transparency, typological similarity, and markedness contribute to how "borrowable" a form or structure is between languages.

The more frequent that a grammatical category is in one language, the more likely it is to be borrowed into another (Aikhenvald 2006a). For example, obligatory categories are generally borrowed more often than non-obligatory categories (Aikhenvald 2006a). Transparency refers to how integrated a form or structure is in the language, in other words how identifiable it is to speakers. In general, a word is often more transparent than an affix, particularly an affix that undergoes complicated allomorphy. More transparent forms and structures borrow more easily (Aikhenvald 2006a). Styles of speaking, referred to as discourse structures, are highly transparent and thus highly borrowable. Languages in contact with lots of bilingualism often have parallel discourse patterns and intonation unit contours (Aikhenvald 2006a). Additionally, pragmatic patterns (like genres, idioms, and greetings) seem to spread easily. In fact, such features have spread from Native American languages into the English spoken by Native North American communities (White 2006). The more

pragmatically salient features (e.g. foregrounding or backgrounding a topic) are often considered much more likely to diffuse (Aikhenvald 2006a). For this reason, changes to word order and argument marking are quite common, and this argument is used by Mithun (2010) to explain why universally rare argument constructions are found in many language families in Native North America, arguing that these structures spread through diffusion, with the source of multilingualism due to intermarriage being common amongst neighboring groups. For example, Chickasaw and the unrelated language Natchez share a focus-marking suffix, which realizes as -(*h*)*oot* in Chickasaw and -*ook* in Natchez (Kaufman 2014).

Due to linguistic factors, researchers believe that idioms and discourse structures are the most likely to be affected in contact situations, while syntactic structure, core lexicon, and inflectional morphology are less likely to be changed (Aikhenvald 2006a). In terms of discourse structures, fillers, interjections, and discourse markers, such as the switch-reference system mentioned for Chickasaw, are highly susceptible to diffusion (Aikhenvald 2006a). In studies of bilinguals, these are all common locations of code-switching (Aikhenvald 2006a). In the one study of Chickasaw conversation, which included all bilinguals, the discourse markers, fillers, and interjections were common sites where the speakers switched to English (Walker 2000). The commonality of pragmatic contact-induced change suggests that bilinguals are cognitively motivated to align the pragmatic organizations of their two languages (Aikhenvald 2006a). In other words, bilingual speakers are most likely to alter their two languages by trying to formulate similar styles of speaking in both. Topic-marking, focus-marking, reference-tracking, and evidentiality have been suggested as Southeastern areal features, meaning

they spread across the languages through language contact. All of these features are found in Chickasaw and the other Muskogean languages (Kaufman 2014).

Mechanisms of grammatical change are often influenced by linguistic typologies, which is a way of classifying languages. Languages are generally categorized morphologically as being either more synthetic, that is having a higher number of affixes per word and a lack of transparency; or more isolating, where individual morphemes are expressed via individual words or as affixes with little to no allomorphy, making them highly transparent. For example, English is an analytic language while Chickasaw is a more synthetic language. Specifically, Chickasaw is an agglutinative language, which is in the middle of this scale, having a large number of inflectional affixes but they are generally transparent (Fitzgerald 2016). Languages that are typologically similar, that have preexisting similarities in their structures, seem to borrow more readily (Aikhenvald 2006a). Furthermore, languages being resistant or more welcoming to borrowing seems to correlate with typology: more morphologically complex languages, which are considered more synthetic, tend to borrow less, and tend to borrow nouns over verbs. Chickasaw has borrowed both nouns and verbs from English. More analytic languages are expected to be more receptive to borrowing than more synthetic languages. Sometimes language change can significantly alter the morphology of a language, so that it changes its typology, and these are referred to as system-altering changes (Aikhenvald 2003).

Markedness refers to how unusual a feature is cross-linguistically, with a marked feature being more unusual and an unmarked feature more common. Marked features are considered more difficult to learn or acquire, and thus they are more easily

lost during language change (Palosaari and Campbell 2011). However, social and affective factors can run counter to any of these observed trends.

The way that a speech community thinks about their language can have a large impact on language change. As mentioned, communities can perceive the borrowing of forms as "good" or "bad," or even just feel that the borrowing from one language is "good" while borrowing from another is "bad." An affective factor that influences change is how aware speakers are of the parts and pieces of their language, in other words how prominently they perceive certain aspects of their language. For example, some of the recent Chickasaw borrowings from English are still perceived by speakers as coming from English (whereas the aforementioned Spanish example of *tili'ko'* is not thought of in that way) and they can express resistance to using, or at least endorsing the use, of those forms. When creating vocabulary for a language pedagogy project, some of the Chickasaw speakers were resistant to including borrowed verbs like *leeti* 'be late' (from English "late"). Features of a language that speakers feel are particularly salient may develop a certain emblematicity associated with their language (Aikhenvald 2006a). Saliency is often closely correlated with markedness. For example, speakers may take pride in a particularly "exotic" sound in their language that is not found in the other language, and thus such sounds may be particularly resist to change (Palosaari and Campbell 2011). For example, the Chickasaw phoneme <lh> is one that speakers seem particularly aware of, as it is one of the few sounds that I have observed them describing to learners how to pronounce and how it is important to pronounce it correctly.

Lastly, individuals and communities are not entirely passive entities where language change is concerned. As mentioned in the discussion of borrowing, speakers are often quite aware of recently borrowed forms and the community may have strong ideologies against borrowing (Aikhenvald 2006b). Just because a speaker, usually a bilingual or heritage speaker, innovates a new borrowing in the language does not necessarily mean that the rest of the speech community will accept the new term. However, speakers are often much less aware of borrowed patterns, and for this reason, the diffusion of patterns is considered less controllable than of forms (Aikhenvald 2006a). Furthermore, communities can and do engage in language planning or language engineering efforts, of which language revitalization and maintenance are examples. Language planning efforts can be just as unpredictable as language change. Many minority language communities have attempted to "purify" their lexicon of dominant language borrowings by creating new words in the minority language to replace the borrowings (e.g. Hornsby and Quentel 2013). Often these changes are not immediately accepted by the entire speech community (Aikhenvald 2006a, Hornsby and Quentel 2013).

3.1.5 Rhetoric of Change

An increasing number of researchers have criticized the rhetoric used to discuss endangered languages (Hinton 2001c, Hill 2002, Perley 2012, 2014, Chew 2016), and specifically the rhetoric used to talk about language change in endangered languages (Wolfram 2002, Haynes 2010). The rhetoric often centers on the notion that language change in an endangered language is either indicative of "simplification," leading to pidginization or creolization, or "loss," leading to death (Haynes 2010). Since many of

the works that I have cited in this chapter employ this rhetoric, I feel the need to address why I am not using it here.

I do not use the term "simplification" when referring to language change, as I agree with Haynes (2010) that this term, while having a specific technical meaning in linguistics, is homophonous with a non-technical meaning that has a deeply negative connotation in the context of language revitalization. The connotation gives the impression that some changes are "bad," even though from the scientific view of linguistics, all change is just change. Haynes (2010: 94) criticizes the rhetoric for sending the message to communities that "language revitalization is a hopeless cause," while the message to researchers, and I add also to communities, is that endangered language change only trends in one direction, toward simplification. Few studies exist of how speakers and learners perceive change in endangered languages, so the prevalent use of the linguistic term could be pushing an unwanted and unfounded negative connotation. Also, the assumption of simplification undermines the agency and creativity of the members of an endangered language community. Wolfram (2002) critiques studies of endangered language change as being overly and narrowly focused on simplification. For communities, the rhetoric is discouraging; for researchers, it may skew research results or turn researchers away (Haynes 2010).

Several works that I have cited in this chapter adhere to the rhetoric of "loss" through the use of the "death" metaphor (Dorian 1981, 1989, Campbell and Muntzel 1989, Romaine 2010, Aitchison 2013). The use of this metaphor has been criticized by many (Hinton 2001c, Mufwene 2004, Perley 2012, 2014) for various reasons. First, this metaphor generates negative stigma about the language change that occurs during rapid

language shift (the "death process"). I do not adhere to this negative stigma in this research, since scientifically all language change is neither good nor bad. This metaphor also implies that there is a finite point at which the changes can accumulate so that the language ceases to be itself. This is problematic since language shift and change are processes that affect every individual speaker in different ways (Mufwene 2004). Some have clarified that the language is only "dead" when there are no longer any speakers (Crystal 2000), but others have recognized that determining what "the language" is and who is a "speaker" can be quite difficult in situations of advanced rapid language shift (Perley 2014).

Furthermore, language "death" is almost always defined in terms of the loss of "the last speaker," and ignores the interrelated social aspects of language use in a speech community and the ethnolinguistic identity of community members, whether or not they are identified as "speakers" (Perley 2014). Another problem with this metaphor is that death is a permanent state for living organisms, but not for languages, especially if "language death" is defined only as when a language is no longer spoken (Perley 2014). Languages with no speakers have been spoken again, not just read off the page but used again within speech communities (examples include Myaamia in Oklahoma (Baldwin et al. 2013)). For this reason, Perley and others (Hinton 2001c) advocate the term *sleeping* languages over "dead" or "extinct" languages. This shift in metaphors is especially important in endangered language communities, as the implications of the "death" metaphors are likely to affect the types of action taken by communities, academics, and funding agencies (Perley 2013). While scholars of language documentation, description, and revitalization have noted the issues of this metaphor

(Hinton 2001c, Perley 2012), it seems most persistent in studies of language change (e.g. in Aitchison 2013, Romaine 2010).

Perley (2012, 2013, 2014) argues that the rhetoric needs to move away from language death and toward language life by focusing on what he calls the emergent vitalities of language reclamation and revitalization. Perley critiques language documentation's focus on documenting "artefacts of a living language and not the living language itself" and describes emergent vitalities as the many ways that a language can live within its community (2012: 134). Perley argues that changing the metaphors to emergent vitalities will further the aim of language documentation and description to be more inclusive (2012). Language documentation of endangered languages has been criticized for being too narrowly focused (Woodbury 2005, Mithun 2013, Nathan and Fang 2013). Some critics concede that the lack of resources, particularly human resources, in documentation work are limiting. But in considering what has been documented and described in some communities, documentary linguistics has been criticized for not fully representing how the majority of the contemporary speech community speaks the language, but rather privileging the form deemed by the linguist as the "most conservative," which generally relates to the "oldest" form spoken by the eldest speakers who are the "most" "fluent" (Woodbury 2005, Mithun 2013, Nathan and Fang 2013, Chew 2016). In the critiques of this trend, many have noted that the language community would likely benefit more from a documentation of current speech practices used by the majority of the community (Woodbury 2005, Perley 2014). Certainly such documentation would be more useful to language revitalization programs. In addition to benefiting language communities much more than the "death"

metaphor does, emergent vitalities offer a new area of study to linguists (Perley 2014). This dissertation, in part, offers a description of current language in use by a part of the Chickasaw speech community, the Chikasha Academy.

3.1.6 Summary

Language change studies rarely speak in absolutes. Language change scholars initially argued that morphosyntactic change was impossible in languages because such change would be too fundamental to the language (Meisel et al. 2013). Yet, morphosyntactic language change has been observed, especially in languages that have experienced shift (Mithun 1989, 2010, 2015, Aikhenvald 2006a). No guaranteed predictions can be made about what will or will not be changed in a contact situation (Aikhenvald 2006a). Many variables facilitate language change (sources, mechanisms, linguistic factors and non-linguistic factors), and usually several of these are involved in any instance of change (Aikhenvald 2006a). As mentioned, the results of language contact and language shift are not always language endangerment and revitalization. Many, if not all, languages around the world have experienced the changes described in this section due to different types of acquisition. While the focus of this section has been on language change in endangered languages, all of the aforementioned mechanisms of change have also been observed in non-endangered languages (Palosaari and Campbell 2011).

Language change cannot be separated from the changes to a language's ecology. Endangered languages in Native North America are all the substrate or minority language in relation to English (and sometimes other languages); all communities are today bilingual (or multilingual); and communities have experienced varying degrees of

language shift, with some communities still having monolingual elder speakers and some have not had any type of speaker for decades or centuries. An important impact of rapid language shift is how it causes other types of acquisition to occur, creating a variety of speaker types. Many linguists working with endangered languages have observed the relatively large amount of change between generations of speakers. Because of the rapid widespread linguistic changes occurring in the span of one or two generations, communities with multiple generations of speakers often have noticeable differences in the way each generation speaks. Linguists who have noticed these changes have often described them in terms of an "older" or "more conservative" generation of speakers and a "younger" or "more innovative" generation of speakers (Dorian 1981, Evans 2001, Aikhenvald 2002, Grinevald 2003, Grinevald and Bert 2011). The "older fluent" generation, if bilingual, experienced successive bilingualism with the endangered language as their L1 and the majority language as their L2. Often they did not learn the L2 until adulthood and their use of the L2 shows transfer from their L1. The "younger fluent" generation usually experienced either mutual bilingualism but spent most of their life dominant in the majority language, or successive bilingualism where the native language was acquired second. Many researchers have observed, and some have documented, the structural, syntactic, morphological, lexical, and phonological changes that have occurred between these older and younger generations of fluent speakers (Dorian 1981, Evans 2001, Aikhenvald 2002, Grinevald 2003).

Both groups of speakers are often aware of the differences in how they speak. In many communities, the younger fluent speakers are reported to often comment on how

the older generation spoke the language "better" (Evans 2001). Some bilingual or heritage speakers may not even identify themselves as a speaker because of the belief that only the older generation consists of "true" speakers who speak the "true" language (Grinevald 2003). However, even though the "young speakers" will speak slightly differently, the changes are not extensive enough that the "old speakers" find their speech unacceptable (Dorian 1981, Grinevald 2003). The Chickasaw speakers today often refer to the differences in how they speak when compared to the way they remember their parents and grandparents speaking the language. At the same time, they are extremely proud to speak the language of their parents, grandparents, and ancestors. When I was interviewing one of the speakers, Hannah Pitman, about how she learned Chickasaw, she stated "I feel I learned from the best."

3.2 Adult Language Acquisition in the Context of Language Revitalization

The goal of language revitalization is to push back against language shift and re-establish the endangered language in new domains. Often re-establishing the language in the home is a primary goal (Fishman 2001). Communities that have a large number of native speakers of all ages engage in efforts to re-valorize the language, to encourage young speakers to use the language with their children and in their homes, and to (re)develop natural child language acquisition. Communities like Chickasaw, and many other Native North American languages, face the problem of the missing generation and instead currently focus their efforts on creating new adult speakers, through immersion programs like the Chikasha Academy. In language acquisition studies, adults learning a new language are typically categorized as either second language (L2) learners or heritage language (HL) learners. Adults learning their indigenous language have been

included in both categories with recognized problems for each categorization. Reasons to include them in each category, and the surrounding issues, are first briefly described. Then, I describe how a recent reframing of L2 acquisition (Ortega 2013) applies to the context of language revitalization. Lastly, I consider how language revitalization programs are active entities in the processes of language acquisition and change.

3.2.1 Adult Language Acquisition

Since the majority of Native American language learners, especially of the younger generations, have never or only rarely heard the language spoken, they begin the learning process not entirely different from many L2 learners, in terms of starting linguistic abilities (Hinton 2011). The typical L2 learner begins their learning process in the classroom as an adolescent or adult, which is also true for most adults learning their indigenous language in North America. For many Native American communities where the language is spoken by only a small number of elders, the classroom may also be the only context where they are exposed to the language, in ways that are not unlike L2 learners. Given these similarities, many L2 acquisition theories have been successfully applied to curriculum development in endangered language communities (Hinton et al. 2002, Berlin 2006). Research from L2 acquisition has also spurred the decision of many programs to focus on immersion based education, as described in the first chapter (section 1.3). Especially in terms of pedagogy and materials development, many endangered language programs have incorporated L2 immersion inspired teaching methods, including TPR, or total physical response (Adley-SantaMaria 1997, de Reuse 1997), and communicative approaches to language learning (Hinton and Hale 2001, McCarty and Schaffer 1992). These L2 methods and approaches also influenced the

creation of the widely-used Master-Apprentice method, which was the original inspiration behind the development of the Chikasha Academy.

However, one major issue with L2 acquisition is that many endangered language learners and language revitalization activists have a strong aversion to referring to the Native language as a 'second' language, which is often times used synonymously with foreign language (White 2006, McCarty 2008). Indigenous languages are a strong part of indigenous identity, and their situations are not similar to the L2s most commonly taught in schools. Many want recognition of the uniqueness of endangered languages and do not find this when they get lumped together with L2s (White 2006, McCarty 2008). Because of issues with L2 acquisition, endangered language learners are frequently included in descriptions of HL learners (Valdés 2001, Carreira 2004).

The discussion among researchers of HLs over the definition of HL learners is ongoing, as different definitions are criticized as overly narrow or overly broad (Carreira 2004, Hornberger and Wang 2008). Some define HL learners based exclusively on one characteristic, whether they developed some previous linguistic proficiency due to some child language acquisition of the HL (Lynch 2003). In heritage language studies, the most commonly used definition of a HL learner is one who began their HL acquisition in the home and before adulthood, as opposed to typical L2 learners who begin their acquisition in the classroom or during adulthood (Kagan and Dillon 2008, Lynch 2003). This definition, while criticized as overly narrow, is in practice most often used. Most HL studies focus on how much linguistic ability was retained from childhood and/or how or if linguistic abilities can best be reactivated. For endangered language communities that have these types of heritage speakers, knowing

how to reactivate the latent knowledge would be very valuable to language revitalization efforts. This subset of HL studies, then, is likely the most valuable to endangered language programs that involve large numbers of heritage speakers with latent linguistic abilities.

Other definitions of HLs do not define learners only by their acquisition of the language in the home, and instead define them also by their strong personal connection to both the language and speech community, usually through their family (Carreira 2004). This definition is more inclusive in order to avoid excluding learners that have this strong personal connection with the language but without any previously acquired linguistic abilities. To differentiate between these two types of HL students, some have suggested referring to those with previously acquired linguistic abilities as heritage speakers and those without as learners with a heritage motivation (Valdés 2001). Whatever they are called, most agree that these two subgroups of HL learners have different language learning needs (Carreira 2004, Valdés 2001, Polinsky and Kagan 2007). Obviously many adult learners of Native North American languages would be similar to this second group of HL learners, who are strongly motivated by their connection to their language even though they did not acquire the language during childhood. Thus, many researchers have specifically included indigenous or endangered languages in their definition of HL studies (Valdés 2001, Carreira 2004, Hornberger and Wang 2008)

However, others have noted problems with the categorization of indigenous languages as HLs. Some have argued that referring to Native American languages as 'heritage' languages feeds into a pre-existing negative connotation that these languages

are “relics” of the past, “stuck” in the past, and incapable of being brought into present day usage (McCarty 2008). Others have noted that endangered languages are more unique than they are similar to HLs (White 2006). While HL studies recognize that learners with a heritage connection, but without linguistic abilities, are different from L2 learners, they only recognize that they have a unique motivation (Polinsky and Kagan 2007). While motivation is important in language learning, the motivations of learners of endangered languages are distinct (King 2009).

Researchers considering the specific context of endangered languages and language revitalization have found that learners of these languages have unique motivations (Hinton 2011, King 2009). In L2 acquisition studies, motivation is usually categorized as either instrumental, where the learner is seeking some sort of benefit by learning the language, usually academic, economic, or social; or as integrative, where the learner wants to identify with the language’s community and members (King 2009). But learners of endangered languages have been found to be more commonly and most intensely motivated by other factors not represented by these categories (King 2009, Hinton 2011, White 2006). These learners are often motivated to resist language loss and endangerment (Hinton 2011), to become language activists (Hinton 2011), and by their sense of responsibility towards ensuring the survival of their language (King 2009). Their motivations are tied to their expected future relationship with the language, which unlike L2 or HL learners, learners of endangered languages are often expected to help rebuild the new language community, by becoming a language activist and/or new speaker (Hinton 2011). Perhaps most unique to learners of endangered languages is their position of potential influence on both the future vitality and future variety of the

language (Hinton 2011). There are additionally many more differences that make learning an endangered language unique from learning a HL or L2.

Hinton (2011) contrasts the teaching of endangered languages with L2 and HL teaching. For each group, she considers the following factors: motivations of the learners, goals of the language program, future relationship of the learner with the target language, the learner's influence on the target language, and the effects of these factors on teaching. Across these factors, Hinton finds that learners of endangered languages are unique. Hinton particularly contrasts the future relationship of endangered language learners, who take on a much bigger responsibility in recreating the endangered language speech community, "which will primarily consist of the second language learners" (2011:310). Additionally, the limitations that endangered language learners face in terms of access to materials, resources, and speakers are greater than those experienced by HL or L2 learners (Hinton 2011). Furthermore, the endangered language learner's relationship to their language and community is drastically different than for L2 or HL learners (Hinton 2011). Endangered language learner's and educators' involvement in language revitalization puts pressures on them to protect the future of their language, not just for themselves but for their community (King 2009).

With the huge diversity of situations of individual indigenous languages and communities, both L2 and HL acquisition research may offer contributions to curriculum development and planning. For endangered languages, some learners are more like traditional HL speakers who acquired some of the language, largely naturally and unconsciously, during childhood from family, while other learners are more like typical L2 learners who were first exposed to the language during a conscious course of

study during adolescence or adulthood. In some language revitalization discussions (Taft 2017), the learners who are like typical HL speakers have been termed "super learners," since they have some pre-existing or underlying linguistic abilities that can be re-activated when they begin conscious study as adolescents or adults. The term super learner also has a more positive focus on their retained linguistic abilities (Taft 2017).

Learners of endangered languages are unique when compared to L2 and HL learners. Yet, much of L2 and HL theory and methodology is applicable to many adult learners of endangered languages (Hinton 2011), including the learners in the Chikasha Academy. However, some adjustments to language acquisition frameworks are necessary. The next section considers how to reframe L2 acquisition theory and methodology to the context of language revitalization for adult learners of endangered languages.

3.2.2 Reframing Acquisition Research for Language Revitalization

This dissertation describes the language learning successes of the Academy learners by describing their learning trajectories during the first year of the program. While I make use of the research methodologies employed in L2 acquisition to study the development of learner language (described in the next chapter), some adjustments are necessary due to the unique context of language revitalization. This section describes the necessary reframing.

The study of the language produced by L2 learners is referred to as the study of learner language, also called interlanguage. Interlanguage was the original term coined by Selinker (1972), who wanted to emphasize that the language used by learners is a fully functional language, guided by rational and identifiable rules, but also that this

language is constantly changing as the learner receives more input. Selinker's (1972) publication marks the founding of L2 acquisition as a discipline (Ortega 2013). Previously, learner language had only been examined as an imperfect imitation of the L2. The learner language was compared to an idealized standard of the L2, as spoken by an idealized monolingual speaker, and all differences were labeled "errors" and attributed to transfer (Lightbrown and Spada 2006). But studies began to discover that variations in the learner language were often not explainable by simply transferring knowledge of the L1 (Lightbrown and Spada 2006). Rather, the learner language is better understood as a developing system of knowledge of the target language, which refers to the language being learned or acquired. Learner language research studies the developing system of knowledge as its own language, influenced by the L1 and target language, in addition to universal linguistic and learning processes. Many of these processes are identical to the mechanisms described for language change. As mentioned, transfer is identical to borrowing, and learners frequently create calques, but learners will also reanalyze, reinterpret, and overgeneralize (Lightbrown and Spada 2006, Ortega 2009).

However, the field of L2 acquisition has been criticized for remaining overly focused on comparing learner language to the L1. Ortega (2013) summarized past critiques of comparisons in L2 acquisition as focusing on three interrelated issues: the comparative fallacy, the target deviation perspective, and the monolingual native speaker bias. Under the comparative fallacy, L2 acquisition analyzes learner language "by a constant subordinating comparison to the competence of assumed monolingual native speakers" (Ortega 2013:15). The target deviation perspective frames L2 learning

as inherently negative, focusing only on where acquisition does not work, instead on where it does (Ortega 2013). Lastly, the monolingual native speaker bias emphasizes the tautological nature of many L2 acquisition studies, which focus on why L2 learners are what they cannot be, a monolingual speaker (Ortega 2013).

The problems with these comparisons are compounded in the context of language revitalization. Comparing the speech of learners to an idealized standard form of the language is problematic, as a description of such a standard would normally be found in published grammars. For many endangered languages, such descriptions do not exist or are too sparse to use for proper comparisons. Furthermore, for many endangered languages, such descriptions do not represent how the language is spoken amongst most of the community (Woodbury 2005, Mithun 2013, Nathan and Fang 2013), and thus using such descriptions further pushes the comparative fallacy. HL studies face a similar challenge, and instead seek to compare the speech of HL speakers and learners to whichever specific variety of the HL the learner or speaker acquired (Polinsky and Kagan 2007). In other words, comparing a learner language to a described variety that was not part of the learner's input obscures the success of the learner, by making the learner language seem more different from the input than it actually is.

Ortega (2013) critiques L2 acquisition as a field for having an overly narrow view that only compares L2 acquisition against monolingual child L1 acquisition. Rather, Ortega proposes that L2 acquisition be reframed as "the study of late bi/multilingualism," focusing on explaining how late bilingualism is possible and normal rather than impossible or exceptional (2013: 17). Instead of only comparing

child L1 acquisition and adult L2 acquisition, Ortega also suggests comparisons with child bi/multilingual acquisition, since L2 acquisition necessarily creates bi/multilingual speakers and not monolingual speakers. Bi/multilingualism is more common throughout the world, and L2 acquisition should not take monolingualism as a focus for comparisons (Ortega 2013). This reframing pushes L2 acquisition studies not to assume that the end goal of an L2 learner is to have identical linguistic abilities to an idealized monolingual native speaker. Such a comparison is inherently negative, and impossible (Ortega 2013).

Some recent research on language acquisition in the context of language revitalization has supported the application of the concept of multicompetence (Hirata-Edds and Peter 2016, Chew 2016). This concept emphasizes that multilingual speech communities and multilinguals themselves speak and use one connected linguistic system, rather than two separate linguistic systems. Thus multilinguals have an entirely different linguistic system than a monolingual and the two should not be compared (Ortega 2013). In the context of language shift, a multi-competence view emphasizes the shared linguistic abilities that all speaker types (fluent, bilingual, heritage, rememberer, and new) possess as multilinguals, focusing on their communicative abilities through their multicompetence rather than on their abilities in separate linguistic systems (Hirata-Edds and Peter 2016). A multicompetence view of language acquisition values L2 learners for what they are capable of, not for how they are different when compared to an idealized monolingual native speaker (Hirata-Edds and Peter 2016).

The multicompetence view of the speech community as using the same multilinguistic system is especially applicable to situations similar to the Chickasaw community, where the speech community is all at least bilingual in the same two languages. When the Chikasha Academy members speak Chickasaw together, none of them are limited to a monolingual competence; their multicompetence of the two languages is evident in every interaction. A multicompetence view of language revitalization emphasizes that all users of the endangered language, regardless of specific linguistic abilities, are contributing to its future (Hirata-Edds and Peter 2016). Chew (2016) uses the term emerging multilingual to refer to learners of indigenous languages in order to celebrate their multicompetence and multilingualism rather than characterizing young learners in the inherently negative way that many discussions of language acquisition and documentation do. Chew also emphasizes that emerging multilinguals stand to play a critical role in the future of their languages as the youngest members of the emerging multilingual speech community.

Most language acquisition studies, both of HLs and L2s, force a measuring of success against an idealized monolingual native speaker. But, for most language revitalization programs, in Native North America at least, recreating monolingual speakers is not the goal of their language revitalization programs, but rather building a new bi/multilingual community where the endangered language is spoken in specific domains (O'Grady and Hattori 2016, Hirata-Edds and Peter 2016). Thus, forcing language revitalization programs to measure their success like other language acquisition programs is a recipe for frustration, disappointment, and perceived failure. Language revitalization programs are not failing in their goal to reverse language shift

by creating new bi/multilingual speakers who will inevitably speak the language differently than a monolingual speaker because they will be bi/multilingual.

3.2.3 Mediating Language Change

Many communities have undertaken language revitalization efforts in response to language shift, but language revitalization then generates its own kinds of language change (Hirata-Edds and Peter 2016). Hinton (2008, 2011) suggests that language revitalization will result in changes due to the language being learned as a L2. Thus language revitalization programs are often another phase of change due to their enacting another type of acquisition, adult L2 acquisition. However, language revitalization programs are conscious and thoughtful acts of language practice where intergenerational relationships are (re)established and where the use of the language is (re)negotiated. These processes have similarities to the process of developing a new variety.

A new variety forms in a language when speakers converge on a set of linguistic norms distinct from the previously held set of linguistic norms in a relatively quick period of time (Kerswill 2010). Language change occurs naturally and slowly in all languages, but the formation of a new variety occurs more quickly, and most often emerges when a speech community has experienced trauma (Kerswill 2010). Endangered languages, like Chickasaw, have experienced trauma and many changes due to rapid language shift. During the emergence of the new variety, there is a period of focusing (a re-emergent of norms) after a period of changes in norms (Kerswill 2010).

During Chikasha Academy sessions, the speakers and learners are (re)negotiating norms of how to use Chickasaw in their particular intergenerational speech community. Exchanges like the one included here, between speaker Ihoo Himitta'/Hannah and learner Itti' Okchamali'/Ric, are frequent in the Academy.

HAP: *'iksaachila'ntok' yammakoot aalhpí'sahookya 'iksaashla'ntok' hooaachi.*
'That one 'iksaachila'ntok' is right but they say 'iksaashla'ntok'.'

RIG: *kanimpikya?*
'Either one?'

HAP: *mmhmm.* (08/02/2016)

In this exchange, Hannah is explaining that she says *iksaachila'ntok* while other Chickasaw speakers say *iksaashla'ntok*, utilizing a regular phonological rule (described in section 2.1) that Hannah does not use in her own variety. The learners had heard other speakers say *iksaashla'ntok* the day before, but when Hannah was saying *iksaachila'ntok*, they were confused as to which one was correct. Hannah tells them here that they are both correct and they can use either one.

Most communities engaged in language revitalization are in the middle of a period of (re)focusing, of similarly (re)negotiating new language norms in response to past and ongoing language change. Woodbury (2005) uses the term emergent varieties to refer to the many new ways of speaking emerging out of communities engaged in language revitalization. These varieties represent both a continuance from the past and a creativity for the future. Varieties developing through language revitalization efforts today are likely to be the future varieties of endangered languages (Hinton 2011). Community members have various reactions to the emerging or new varieties. In some communities, researchers have cited negative attitudes from elders towards the speech

of younger generations (Dorian 1994, Goodfellow 2002, Holton 2009, Haynes 2010). Many researchers have suggested that communities should accept the numerous and rapid changes occurring in the language, in order to foster positive attitudes about language use and language learning by the younger generations (Goodfellow 2002, Holton 2009, Field 2009, Dorian 1994).

Other quotes directly from language revitalization activists of the Myaamia tribe recognize and accept changes in their emerging or new varieties.

> "… Daryl [Baldwin] recognizes that grammatical, lexical, and pragmatic changes reflect the new social situation of Miami as a language that coexists and will continue to coexist with English. That his children will speak Miami with an English accent is taken as a given and not a large concern for Daryl, or to the best of my knowledge, of any Miami tribal member active in language efforts." (Leonard 2007:64)

> "[…] we will continue to see major shifts over time, but I also acknowledge the creative human spirit that has the potential to bring new meaning and purpose to the language we speak today. I am not afraid of that reality." (Baldwin et al. 2013:8)

Language revitalization programs are well aware of the ongoing changes to their language and speech community and working to mediate them as they can. In working on this dissertation, I had discussions with Lokosh/Joshua D. Hinson, the director of the CLRP, about the goals of the Chikasha Academy. Lokosh often spoke of how he viewed their efforts to be what he called mediated language change. The goal of the Chikasha Academy is for learners to be communicable with speakers, for their way of speaking to be accepted and understood, even if their way of speaking has some amount of change. In this way, the speakers are mediating the changes between the elders of past and the emerging new speakers of today.

A program like the Chikasha Academy, that brings together the elder speakers and younger adult learners, reestablishes the crucial intergenerational relationships necessary for passing on the language. The passing down of a language, under any circumstances, results in some language change. Researchers have long observed that children acquiring their L1, even in a monolingual community, do not speak the language as perfect imitations of their parents (Lightbrown and Spada 2006). Language revitalization depends upon the emergence of new language norms in the speech community, new positive language ideologies toward the language and its revitalization, and new relationships that use the language in at least some domains of life. Language change research suggests that having a large number of bilinguals, heritage speakers, and/or adult language learners in a speech community is the right recipe for a large amount of language change to occur, particularly in morphology and morphosyntax, which are usually more resistant to change than other areas of the language. Although language shift creates an environment more conducive to language change, the seeds of those changes were often 'planted' one or two generations prior. Whatever changes occur will have roots in the past, linked through the continuous chain of intergenerational relationships that have maintained the language and its community.

3.3 Conclusions

Discussing language change can too easily be abstract when really it is a discussion of speakers in contact (Ansaldo and Lim 2015). Language change, shift, and revitalization are all stories of how speech communities, of how people, change and adapt, renegotiating the norms of how and when their languages are spoken. Indeed, the changes in the language are a reflection of the changes to the language ecology and

changing needs of the speech community (Mufwene 2001). Language revitalization, then, is the conscious efforts of the speech community to change norms and re-establish spaces for their language alongside the dominant language, through a process perhaps similar to the creation of new varieties (Kerswill 2010) that creates multicompetent multilinguals (Chew 2016, Hirata-Edds and Peter 2016).

One of the goals of this chapter is to highlight how difficult it is to tease apart language change from its many sources. Often, such attempts are not fruitful, and the true sources of language change lies in multiple causation. Take for example a variation observed in Chickasaw in the speech of the speakers involved in the Chikasha Academy. Chickasaw is described (Munro and Willmond 1994, 2008) as having nouns that indicate either singular or plural, with some ways of specifying one or the other through affixes on verbs, but no affixes on nouns that indicate number. Thus the Chickasaw noun *chipota* can mean 'child' or 'children,' depending on context. Notice that in English of course we have to mark nouns as singular or plural, often with the suffix *-s*. However, the speakers involved in Chikasha Academy translate *chipota* to mean 'child' and prefer the phrase *chipota alhiha'* to indicate the plural 'children.' *Alhiha'* is a nominalized verb referring to two or more animates together. At first glance, the innovation of this plural marker may seem like influence, possibly transfer, from English, which is plausible given the length and intensity of contact between the two languages.

However, that analysis is likely not the whole story. One study of a part of the Southeastern language area (Kaufman 2014) determined five areal features shared between Chickasaw, Choctaw, Natchez, and several other languages. One such feature

is the use of an indefinite plural animate marker, which is how *alhiha'* functions in Chickasaw. In his analysis, Kaufman found the analogous Choctaw nominal modifier *oklah*[24] and Natchez verbal prefix *tah-* (Kaufman 2014[25]). Kaufman analyzes the shared features of the Southeastern area as likely developing through trade relations and the use of Mobilian Trade Jargon, a Muskogean-based pidgin that was widely used as a lingua franca in the Southeast. An analysis based on multiple causation would suggest that Chickasaw developed the variant use of *alhiha'* as an indefinite animate plural marker during its history of contact in the Southeast and then this use has perhaps been amplified through contact and analogy with English. Regardless of the reasons and mechanisms for changes that have occurred and are occurring in the speech of the elder native speakers, their multicompetent use of Chickasaw is the Chickasaw that the learners in the Chikasha Academy are acquiring.

This chapter has also mentioned the unfortunate rhetoric in language change and unfortunate assumptions in language acquisition, neither of which currently lends themselves to the study of endangered languages engaged in language revitalization. I have described in this chapter recently recommended reframings in order to study language acquisition in the context of language revitalization. To replace one of the harmful metaphors, Perley (2012, 2013, 2014) has put forth the term emergent vitalities, to refer to the new ways of speaking, practicing, and engaging with the language that are emerging through language revitalization and reclamation efforts. Woodbury (2005) uses emergent varieties to refer to the specific ways of speaking developing in situations

[24] The cognate in Chickasaw, *okla*, refers to a 'town' (Munro and Willmond 1994) or to 'people' for some speakers.
[25] Kaufman unfortunately only uses Choctaw data in his analysis to represent both Chickasaw and Choctaw.

of language shift and revitalization and emphasizes the continuity and creativity of these varieties. This dissertation focuses on describing one such emerging way of speaking. Chew (2016) has characterized learners of endangered languages as emergent multilinguals and criticizes the limiting assumptions embedded in most acquisition research, promoting instead a multicompetence approach (Hirata-Edds and Peter 2016). Taken together, Perley's emergent vitalities, Woodbury's emergent varieties, and Chew's emergent multilinguals, these might be the beginning of a framework for how to describe what is emerging out of language revitalization efforts, one that focuses on the life and future of these languages and their multilingual, multicompetent speakers.

Chapter Four: Research Methods

In the Chikasha Academy, several adult learners meet daily with speakers for structured immersion sessions. All sessions are recorded by the Chickasaw Nation and these recordings are the main data analyzed in this dissertation. Supplementing this data are interviews with speakers and learners, in addition to grammaticality judgment tasks with speakers involved in the Academy. This dissertation describes how the adult learners in the Academy are learning the language, in terms of what they learn and what order they learn it in. Specifically, the research focuses on the learners' morphosyntax and discourse.

The data was transcribed, analyzed, and coded in order to track input, order of acquisition, and developmental stages of the learner language. Additionally, using learner utterances from the data, grammaticality judgment tasks were administered to speakers to determine how comprehensible and acceptable they found specific forms in the learner language. The judgments of the speakers are particularly important to the Chickasaw Language Revitalization Program (CLRP), which actively involves the speakers at every level of language revitalization. The first section details the site of data collection, the second section describes the methods of analysis, and the third section describes how the data was analyzed and the workflow used during analysis.

4.1 Data Collection Sites

The major source of data used in this dissertation is the recordings of the Chikasha Academy, which were all collected by the CLRP. The other data were all collected by the researcher, including semi-structured interviews with speakers and

learners. This section describes the sites of data collection for each of the two types of data.

4.1.1 Chikasha Academy Recordings

In the Chikasha Academy, speakers and learners meet as a group and the sessions are loosely structured, led by the experienced learners. Most often, the sessions are led by Itti' Okchamali', though all the other experienced learners (Lokosh, Qsi' Tohbi', and Kowishto') lead sessions, too. When leading the sessions, the experienced learners set the topic and focus of each session, make sure that only Chickasaw is spoken, and, most importantly, that everyone takes opportunities to speak. The experienced learners use repetition and nonverbal cues and gestures to ensure that a new learner, like Ofi' Ishto', always understands what is being discussed. When a new learner joins the Academy, they are expected to begin speaking Chickasaw on the first day. This study focuses on the five learners who were part of the Academy from the beginning through the first year, from the fall of 2015 to fall 2016. Barring other circumstances, such as being out of the office, all of the learners were at every session, except for Lokosh who was only able to sit in on the sessions randomly. The number of speakers varied, depending on their availability, ranging from one to three speakers. At present, there are seven speakers who contract or work for the CLRP and partake in the immersion session as their schedules allow. When the group meets, they speak only in Chickasaw. When a learner begins the Academy, they are expected to become conversationally proficient after two years. The Academy creates an important space for intergenerational language transmission.

The Chikasha Academy meets in a small building next to the CLRP office. The building solely houses the Academy work, with one good-sized room that is the immersion session space and a few offices for the speakers and learners. The immersion room is covered with posters of vocabulary lists and paradigms of patterns, like the many question verbs and words. On the one large table in the room are a microphone and copies of both dictionaries (Humes and Humes 1973/2015, Munro and Willmond 2008), lots of pens and paper, playing cards, props like picture books and action figures, and handmade dice that are covered with prompts for telling stories. Train tracks cut through town a little less than a half mile away, and a few times a day all conversation halts while the train blows by. The atmosphere is relaxed and friendly, with people coming in and out, grabbing sodas and coffee. Every session includes lots of jokes, usually lighthearted teasing, and frequent laughter.

A typical immersion session centers around their lives. When they meet right after lunch, often the initial prompt is ‘what did you do for lunch?’. For the first session in the morning, Itti' Okchamali' usually asks ‘what did you do this morning?’. They frequently discuss what they did over the weekend or what they’re going to do at an upcoming event. The sessions also include much more structured prompts, where they purposefully practice a grammatical construction or vocabulary or exercise. For example, the learners may take flashcards and take turns flipping one over, and then saying ‘if I had’ whatever is on the flashcard, ‘I would…,’ practicing the use of a specific modal suffix in Chickasaw. Sometimes everyone is asked to just tell a story about someone they know. Almost every session is structured so that everybody takes turns going around the table, so that everyone has a chance to talk at length. The

learners quickly pick up the useful phrase *yammak illa*, which means ‘that’s all,’ and is frequently used by both speakers and learners to signal the end of their turn, and the end of the session.

The Chikasha Academy followed a loosely structured curriculum during Ofi' Ishto'’s first year. For the first part of the year, the sessions focused on the theme of ‘talking about yourself.’ Sessions frequently began with introductions, where each person talked about where they grew up, where they live, and who their family is. Then the sessions would usually move into answering questions about yourself – what did you do, what will you do, and what do you like to do. After everyone had taken a turn answering the prompt, the sessions then turned to answering questions about who had done what and what someone had said, practicing conjugating verbs in the other persons. During the second part of the year, the sessions focused on talking about others. Sessions frequently centered on telling stories about someone else or retelling what someone else just said. During this time, one of the structured exercises that they included were a series of leveled stories (Hinson 2017). The CLRP director, Lokosh, worked with speakers to record them telling favorite stories, both traditional and autobiographical. As part of content creation for the Academy, Lokosh would take a story and create leveled versions of the story, moving from a very basic novice level of the story up to the full original version of the story told by the native speaker (Hinson 2017). Learners then took turns reading the story, acting the story out with props, and retelling the story to each other, switching from telling the story in third-person to having to tell the story from a first-person perspective. Once comfortable with that level of the story, they then move up to the next, more complicated version.

In addition to the Academy sessions, the recordings from the CLRP include the regular assessments of the learners. At least twice a year, the CLRP assesses each of the learners through a semi-structured interview. The assessments are carried out under the direction of the CLRP by one of the speakers or by Lokosh, the CLRP director. The assessment usually begins by asking the learner a few routine questions ('how are you,' 'what is your name,' 'where are you from') and then moves into various open-ended questions ('speak about your family,' 'what did you do yesterday,' 'what will you do tomorrow') that may include follow-up questions related to whatever topic the learner chooses to talk about. In the last part of the assessment, the learner is provided some sort of prompt for a third person narration. For example, in one assessment, the learner was shown several pictures and asked to describe what is happening. In another assessment, the learner was given several action figures and a playhouse and asked to tell a story. The assessment is designed to cover routine, familiar, and unfamiliar context and content for the learner. The assessments occur one-on-one in the immersion room.

4.1.2 Interviews

I interviewed the learners and speakers in the academy in order to gather detailed language experience histories. I also interviewed the speakers using multiple grammaticality judgment tasks. This information was gathered via informal semi-structured interviews. Interviews with the learners and speakers occurred either in the immersion session room or in the office of Lokosh, the CLRP director. Lokosh's office is located in the building immediately adjacent to the immersion building. His office has a small meeting table frequently used for such work. All research sites were located in

southcentral Oklahoma, specifically in the town of Ada, home to the headquarters of the Chickasaw Nation. The CLRP is housed under the Division of History and Culture, which is part of the Department of Culture and Humanities.

4.2 Data Collection Methods

All of the recordings of the Chikasha Academy, both sessions and assessments, were created by the CLRP. The CLRP records all of the Academy sessions and assessments as part of their dedication to documenting their language. An employee of the CLRP regularly uploaded the recordings onto a cloud storage folder to which I had access and could then download the recordings from. All of the recordings from the CLRP are archived with Chickasaw Nation, backed up through cloud storage, and then regularly archived with the Sam Noble Museum of Natural History in Norman, Oklahoma, the closest archiving institution. As mentioned, the Academy sessions and assessments always took place in the same dedicated space, so the recording equipment remained stationary, always ready to use. This section describes the methods used to collect the other forms of data, the language experience interviews and grammaticality judgment tasks.

4.2.1 Language Experience Interviews

Interviews with learners and speakers about their previous experiences with the language were used to write up the profiles included in the first chapter, section 1.4. The goal of the interviews was to understand what their experiences were with the language before beginning in the Academy. This information was gathered via informal semi-structured interviews. Learners and speakers were asked open-ended questions that

prompted them to talk about their life histories with a focus on the Chickasaw language. Questions included: where are you from, how did you first learn Chickasaw, who in your family speaks Chickasaw today, who do you speak Chickasaw with usually. Specific questions for the speakers included: when did you learn English, did both of your parents speak Chickasaw and/or English, how many siblings do you have, where did you go to school, where did you go to church growing up, have you ever taught Chickasaw. Specific questions for the learners included: what Chickasaw language classes have you taken, which Chickasaw language materials do you use, have you read any publications about Chickasaw, did you hear Chickasaw spoken while growing up, and why did you decide to join the Academy.

In the last part of these interviews with the speakers, I tried to prompt them to talk freely about their opinion of the learner language. All of the background interviews occurred prior to the grammaticality judgment tasks, and I wanted to try to discover if the speakers had any general opinions about learner language. I asked them several questions in order to try and frame this prompt different ways. These questions included: is there anything about the way that the learners speak that you've noticed, is there anything that they say all the time, or is there any way of speaking that only the learners use. These prompts failed spectacularly to promote any sort of discussion specifically of the learner language. Speakers instead spoke warmly of how happy they were that the learners were speaking their language and how impressed they were with their progress. All interviews were recorded using a Zoom H2N handy recorder and then transcribed in SayMore.

4.2.2 Grammaticality Judgment Tasks

I also administered three separate grammaticality judgment tasks to the five speakers. Grammaticality judgment tasks (GJTs) are used in linguistics, particularly in language documentation and description (Himmelmann 2006, 2012), and widely used in language acquisition research (Whong and Wright 2013). In language acquisition research, GJTs are typically administered to test or explore grammatical competence, usually of a learner rather than a native speaker. In linguistics, they are typically administered in order to explore what utterances are considered agrammatical in a language, usually involving a native L1 speaker giving reactions to pre-constructed sentences. In this research project, the GJTs were designed to prompt the L1 speakers, the true experts of the Chickasaw language, to discuss variations found in the learner data. I chose not to use segments of recordings directly from the Academy sessions, as I did not want to skew responses due to the variable of speakers reacting differently to different learners. Rather, the utterances were all recorded by Lokosh, so the speakers were responding to the same learner on every GJT.

The GJTs involved multiple pairs of recordings. The two utterances in each pair were identical except for one variation and both attempted to convey the same or a very similar meaning. One utterance in the pair was lifted directly from learner data and the other was my construction of an utterance based on the descriptive literature on Chickasaw. For example, one GJT pair included *iksabanno* and *sabanna ki'yo*, which both translate as ‘I don’t want it.’ There are two ways to create negative sentences in Chickasaw, one involving the simultaneous use of hypothetical prefix *ik-* and negative suffix *-o*, resulting in a new derived negative verb stem. The other way involves using

an auxiliary to create a periphrastic negative. Both negation processes are describe as occurring in relatively free variation (Munro and Willmond 2008). This pair was designed to test the differences in the two negative structures in Chickasaw. The first uses the complex affixation and the second uses the periphrastic negative with the auxiliary verb *ki'yo* following a regularly inflected verb. This is a typical example of the kinds of pairs found in the GJTs.

After hearing the GJT pairs, speakers were asked to translate each utterance, then asked if there were any differences between the utterances, and then asked whether or not they would say each utterance themselves. Speakers were essentially asked to judge a form as acceptable or not-acceptable, though the questions were open-ended to allow for speakers, if they wanted, to fully express their impression of each utterance. The GJTs were structured in order to prompt the speakers to discuss their opinion about variant utterances. Most speakers rarely correct the learners during the Academy sessions, unless specifically prompted by the learners (often with the question *alhpí'staa*? 'is it right?'). Thus I wanted to include GJTs with speakers in order to ascertain how speakers judged variant forms produced by the learners. Many of the speakers commented that they quite enjoyed the GJTs and wanted to do more of them in the future.

The GJTs were administered using the touchscreen tablet of a Microsoft Surface Pro4. The touchscreen was chosen to allow the speakers to comfortably navigate through the task. The GJTs were administered using an interface created with Microsoft PowerPoint. Each slide contained two large buttons that played each utterance when touched and then an arrow to move on to the next pair. This choice of interface allowed

the speaker to listen to each utterance as many times as desired and decide when to move on to the next pair. All GJTs were recorded using a Zoom H2N handy recorder.

4.3 Data Analysis Methods and Workflow

Data analysis methods were adapted from language acquisition methods with the reframing detailed in the previous chapter. All recordings were transcribed using the SayMore program and analyzed using the Fieldworks Language Explorer (FLEx) program. The methods, workflows, and decisions about workflows using these programs are detailed in this chapter.

4.3.1 Describing Chickasaw Varieties

The goal of language revitalization is to reverse the shift of the speech community toward monolingualism in the dominant language (Hirata-Edds and Peter 2016). As stated in the previous chapter, using language acquisition analysis methods requires a reframing of acquisition research to better fit the context of language revitalization. As a field, language acquisition has recognized the need to shift toward a focus on bi/multilingualism as its own inherent state and not compare the language of bi/multilinguals to that of monolinguals (Ortega 2013). Chew (2016) categorizes indigenous language learners as emerging multilinguals and their emerging ways of speaking through the concept of multicompetence, which others have also proposed as an appropriate means of examining language learners in the context of language revitalization (Hirata-Edds and Peter 2016). In this dissertation, I refer to the way that the Chickasaw learners speak their language as their learner varieties, though as described in the last chapter, I view these learners as multilinguals with

multicompetence. Their way of speaking is described with a positive focus on their developing abilities and an analysis of the variation they create during development.

In language acquisition literature, the emergent ways of speaking of learners are often called learner language (Saville-Troike 2006). A learner language can be understood as being comprised of a learner grammar, which refers to the mental understanding of the linguistic system that the learner develops, and a learner variety, which refers to a learner's way of speaking or writing (Ortega 2009, Lightbrown and Spada 2006). The learner grammar is initially heavily influenced by the L1 grammar(s) of the learner, but as the learner progresses, their grammar will change and adapt in response to the input they receive. These changes in the learner grammar will be visible in the learner variety. The learner grammar is under constant revision, so long as the learner continues to receive comprehensible input. In every attempt to communicate, a learner is testing out the success of their current learner grammar (Ortega 2009). If learning continues, the learner variety and grammar will continue to change and adapt.

Given the critiques of language acquisition research for comparing learner speech against the unreasonable standard of a monolingual L1 speaker (Ortega 2013), most research has moved away from the use of the term interlanguage, since it implies that the learner variety is undeveloped in some way. Some researchers also prefer the term learner variety over learner language, since learner variety emphasizes that the learner's way of speaking is one of many varieties of how the target language is spoken (Hendriks 2005). The learner variety approach analyses the structure of the learner variety as its own logical system that is error-free by definition (Hendriks 2005). This framing further emphasizes that the learner variety is a valid system, just as valid as any

other variety of the language. A learner variety can refer not just to how a L2 learner speaks, but also to child monolingual or bi/multilingual learners as well (Hendriks 2005).

Learner variety studies analyze the learner variety through spontaneous speech in order to describe the learner grammar. Learners are also observed in procedures designed to reveal more about their underlying knowledge, so that researchers can distinguish between their use of memorized chunks of the language and their application of their learner grammar (Lightbrown and Spada 2006). In the Chikasha Academy, the conversation sessions contain mostly spontaneous speech from the learners as they converse with speakers and each other. The CLRP also regularly assesses the learners, purposefully pushing them out of their normal routines in order to better assess them. Both sessions and assessments are recorded by the CLRP and this data is used to describe Chickasaw learner varieties in this dissertation.

The study of learner varieties was first discussed by Corder (1967) and Selinker (1972), who proposed two basic assumptions: 1) the internal organization of a given learner variety at a given stage is systematic, and 2) that the transition over time from one learner variety to the next is systematic. The first assumption is that the learner variety is governed by an underlying learner grammar, which is discernable through an analysis of the speech of a learner (Saville-Troike 2006). Although the learner variety is systematic, the second assumption emphasizes that it is also dynamic, changing frequently and resulting in a succession of different learner varieties. The succession results in an identifiable series of learner varieties as the learner progresses (Hendriks 2005).

A learner variety is often categorized by its level on a proficiency scale (Hendriks 2005). The CLRP uses a specific proficiency scale to assess the learners in the Academy, the scale developed by the American Council on the Teaching of Foreign Language's (ACTFL) proficiency guidelines. The guidelines describe each proficiency level based on what a learner can and cannot do in the target language at that level (ACTFL 2012). After an assessment, the CLRP director assesses the learners according to the ACTFL scale. Additionally, learners in the Academy regularly assess themselves according to the ACTFL proficiency scale by using a self-assessment tool created through a collaboration between the National Council of State Supervisors for Languages (NCSSFL) and ACTFL and referred to as the Can-Do Statements. This tool allows a learner to self-assess their proficiency and identify what areas they need to focus on in order to move to the next level of proficiency.

The ACTFL proficiency scale has five major levels of proficiency: novice, intermediate, advanced, superior, and distinguished. The first three major levels are sub-divided into low, mid, and high, creating the specific sublevels of novice low, novice mid, novice high, etc. The ACTFL proficiency guidelines are designed to evaluate learner language. Figure 9 summarizes the can-do statements for the sublevels of the novice level, Figure 10 for the intermediate level, and Figure 11 for the advanced level. These are specific to interpersonal communication (others exist, for example for presentation speaking or writing) because that is the focus of the Chikasha Academy. They are all adapted from the NCSSFL website.

I can communicate *… on some very familiar topics using single words and phrases that I have practiced and memorized.*	*I can ... greet my peers.* *... introduce myself to someone.* *... answer a few simple questions.*
... on very familiar topics using a variety of words and phrases that I have practiced and memorized.	*... greet and leave people in a polite way.* *... introduce myself and others.* *... answer a variety of simple questions.* *... make some simple statements conversation.* *... ask some simple questions.*
... and exchange information about familiar topics using phrases and simple sentences, sometimes supported by memorized language. *... and handle short social interactions in everyday situations by asking and answering simple questions.*	*... exchange some personal information.* *... ask for and give simple directions.* *... make plans with others.* *... interact with others in everyday situations.*

Figure 9. Novice low, mid, and high can-do statements

I can ... participate in conversations on some familiar topics using simple sentences. … handle short social interactions in everyday situations by asking and answering simple questions.	*I can ... have a simple conversation on some everyday topics.* *... ask and answer questions on familiar factual information.* *... meet my basic needs in familiar situations.*
... participate in conversations on familiar topics using (series of) sentences. … handle short social interactions in everyday situations by asking and answering a variety of questions. … usually say what I want to say about myself and my everyday life.	*... start, maintain, and end a conversation on a variety of familiar topics.* *... talk about my daily activities and personal preferences.* *... use my language to handle talks related to my personal needs.* *... exchange information about subjects of special interest to me.*
... participate with ease and confidence in conversations on familiar topics. … usually talk about events and experiences in various time frames. … usually describe people, places, and things … handle social interactions in everyday situations, sometimes even when there is an unexpected complication.	*... exchange information related to areas of mutual interest.* *... talk through a task that has multiple steps.* *... use my language to handle a situation that may have a complication.*

Figure 10. Intermediate low, mid, and high can-do statements

I can ... participate in conversations about familiar topics that go beyond my everyday life. ... talk in an organized way and with some detail about events and experiences in various time frames. ... describe people, places, and things in an organized way and with some detail. ... handle a familiar situation with an unexpected complication.	*I can ... participate in conversations on a wide variety of topics that go beyond my everyday life. ... compare and contrast life in different locations and in different times. ... resolve an unexpected complication that arises in a familiar situation. ... conduct or participate in interviews.*
... express myself fully not only on familiar topics but also on some concrete social, academic, and professional topics. ... talk in detail and in an organized way about events and experiences in various time frames. ... confidently handle routine situations with an unexpected complication. ... share my point of view in discussions on some complex issues.	*... communicate effectively on a wide variety of present, past, and future events. ... exchange general information on topics outside my fields of interest. ... handle a complication or unexpected turn of events.*
... express myself freely and spontaneously, and for the most part accurately, on concrete topics and on most complex issues. ... usually support my opinion and develop hypotheses on topics of particular interest or personal expertise.	*... exchange complex information about academic and professional s. ... exchange detailed information on matters within and beyond my fields of interest. ... support my opinion and construct hypotheses.*

Figure 11. Advanced low, mid, and high can-do statements

In describing the learner varieties of Chickasaw, I use the assessments of the CLRP and the learners' self-assessments to categorize varieties according to proficiency level. The new learner, Ofi' Ishto', began the Academy as a novice low learner and progressed to novice high, almost intermediate low at the end of his first year. Two of the experienced learners, Itti' Okchamaḷi' and Kowishto', began the Academy as novice high learners and progressed to intermediate mid learners. Ọsi' Tohbi' began the academy as an intermediate low learner and progressed to advanced low. The CLRP director, Lokosh, is an advanced high learner.

The analysis focuses largely on the progression of Ofi' Ishto', as the new learner who began the Academy with almost no previous experience with Chickasaw. Since most of the data is from novice learners, the analysis focuses on describing the various Chickasaw novice learner varieties and the intermediate low variety. The goal of the Chikasha Academy is for a new learner to progress to intermediate mid proficiency after two years. Figure 12 summarizes the progression of the learners according to their oral and self assessments.

Ofi' Ishto'	*Kowishto'*	*Itti' Okchamali'*	*Ǫsi' Tohbi'*
2015/10/26 Novice Low [oral assessment]	2015/10/26 Novice High [oral assessment]	2015/10/26 Novice High [oral assessment]	2015/10/26 Intermediate Low [oral assessment]
2016/01/29 Novice Mid [self assessment]	2016/01/28 Intermediate Low [self assessment]	2016/02/01 Intermediate Low [self assessment]	2016/01/29 Intermediate Mid [self assessment]
2016/02/24 Novice Mid [oral assessment]	2016/02/16 Intermediate Mid [oral assessment]	2016/02/16 Intermediate Mid [oral assessment]	2016/02/16 Intermediate High [oral assessment]
2016/11/15 Novice High [oral assessment]	2016/11/15 Intermediate Mid [oral assessment]	2016/11/15 Intermediate Mid [oral assessment]	2016/11/15 Advanced Low [oral assessment]

Figure 12. Learner assessments summary

As a learner variety progresses in proficiency, specific features of the language are acquired along an identifiable sequence (Lightbrown and Spada 2009). Developmental sequences describe the order in which a learner acquires a specific grammatical feature. For example, learners of English have been observed to follow a specific order of acquisition when learning negation or how to form questions. Children learning their first language (L1) have similarly identifiable developmental sequences. Learner varieties, though they do not have the exact same sequences of L1 learners, do follow identifiable orders of acquisition. Simply stated, “what is learned early by one is learned early by others” (Lightbrown and Spada 2006).

Descriptions of orders of acquisition help to plan curriculum and create pedagogical materials tailored to the specific needs of a learner depending on their proficiency level. Understanding the learner variety also helps teachers to have reasonable expectations for what a learner can achieve in relation to how many hours of input they receive (Lightbrown and Spada 2006). For well-studied languages, like English, developmental sequences inform the development of pedagogical materials. But these sequences are not known for Chickasaw, or any Muskogean language, or very many Native North American languages. In the next chapter, the analysis describes the developmental sequences of specific morphological and morphosyntactic grammatical features of Chickasaw.

Corder (1967) and Selinker (1972) urged L2 acquisition research to focus on describing learner varieties as their own systems, instead of describing them as deficient imitations of the target language system as they had been in the past. Today learner varieties are studied as their own autonomous, logical systems, influenced by both the L1, L2, and universal linguistic and learning processes. Many of these processes are identical to the mechanisms described for language change. As mentioned, transfer is identical to borrowing, and learners frequently create calques, but learners will also reanalyze, reinterpret, and overgeneralize (Lightbrown and Spada 2006, Ortega 2009).

A specific language learning process is fossilization. Fossilization has been described as a closed-loop system, where the learner relies on responses to output to reinforce or force revisions to the learner variety, but if responses remain favorable, the learner variety is not revised (Saville-Troike 2006). Sometimes learner varieties can appear to stop changing over time due to fossilization. For this reason, constant

feedback, via constant interaction with speakers, is required to continue the development of the learner variety. In other words, the learner variety, like all varieties of a language, adapts to meet the needs of its speech community.

The development of the learner variety is also affected by many of the same facilitating factors previously described for language change (see section 3.1.4). Saliency (how noticeable the grammatical feature is), markedness (how unusual the feature is cross-linguistically), language typology (the specific grammatical structures of each language), and transparency (how clear the meaning of the grammatical feature is) can all influence the development of the learner variety (Lightbrown and Spada 2006). Many of these factors are specific to the two languages involved, that is in how similar or dissimilar the grammars are of the L1 (English) and target language (Chickasaw). As such, the learner variety is a complex system involving variation, transfer, fossilization, and universal linguistic processes that changes over time, following developmental sequences and passing through proficiency levels as the learner progresses (Han and Tarone 2014).

As the learner variety changes over time, learners frequently exhibit two specific patterns of behavior. When a learner first acquires a new grammatical feature, they usually initially assume a one-to-one mapping between meaning and form. Initially, learners will often only use one meaning of a form if it has multiple meanings, or only use a single form for all parts of the system (Ortega 2009). For example, novice low learners of Chickasaw will first acquire one of the first person singular subject affixes, often the active *-li* or non-active *sa-*, but with the singular meaning of only first person singular, assuming a one-to-one meaning. The novice low variety frequently includes

variant forms that apply the active suffix to a non-active verb (**banna-li* 'I want it'), or the non-active prefix to an active verb (**sa-toksali* 'I'm working').

As learners progress, they also frequently exhibit a specific pattern of usage called U-shaped behavior (Ortega 2009). U-shaped behavior occurs when the learner has restructured their learner grammar. In this process, a learner will use certain forms during an early stage of acquisition that are memorized phrases. Then the learner will go through a period of restructuring where they use different forms created based on their restructured grammar rather due to memorization and create a large variety of variant forms. This period often involves overgeneralization. Later the learner will return back to their original usage after another restructuring. Their learner grammar is different at the beginning and end of U-shaped behavior, even though their learner variety appears the same.

For example, the new learner Ofi' Ishto' knew how to say 'I'm doing well' in Chickasaw before he even began the Academy. He could accurately respond to the question *chinchokmataa?* 'are you doing well?' with *i̲i, anchokma* 'yes, I'm doing well' on his first day, which includes a conjugation of a III-dative verb. However, Ofi' Ishto' had not developed any understanding of Chickasaw verb conjugations in his learner grammar when he was using this structure, but rather he was relying on a memorized chunk of the language used in a highly routinized way. After two weeks, he applied some of the grammatical knowledge of conjugation that he had acquired, which included the non-active first person prefix *sa-*. Ofi' Ishto' created the utterance **sachokma* using his learner grammar, combining an affix with a verb stem, rather than using memorized language, but his variant form was quickly recast by the other learners

with *anchokma*. Even though Ofi' Ishto' produced a variant form that the other learners recast, he knew more about Chickasaw when he said **sachokma* than when he first said *anchoma*.

U-shaped behavior exemplifies how learner variety development is systematic, although non-linear and unevenly paced, with predictable stages of development (Ortega 2009). While learner language research often can trace the developmental sequences of a particular grammatical feature, actual learner language does not follow clearly delineated stages (Lightbrown and Spada 2006). In other words, the transition between stages is more like a wave than a hard and clear line.

As with the source of language change, the source of variation in a learner variety is often not identifiable. Multiple possible causations often exist to explain a single variant utterance. Psychological factors also impact the development of the learner grammar and can run counter to any general trends that researchers try to develop based on a purely linguistic analysis. For example, many, though not all, learners will avoid using language that they are uncertain about, in order to avoid producing variant forms (Lightbrown and Spada 2006). Thus the absence of some variation does not always indicate that that feature is understood in the learner grammar.

As mentioned in the previous section, transfer is in practice identical to borrowing, but the two are conceptualized differently in the separate studies of language change and language acquisition. Although functionally the same, transfer is not conceptualized as affecting the entire speech community and language, while borrowing involves the important caveat that the material from the other language is fully incorporated into the speech of a (or the entire) speech community. Transfer is instead

conceptualized as not spreading beyond learners, with ideally learners themselves eventually overcoming the effects of transfer. However, in endangered language communities, this distinction may not really serve any purpose, since the future speech community is likely to consist entirely of adult learners. In other words, transfer that occurs during language acquisition in the context of language revitalization may actually be borrowing.

4.3.2 Data Analysis Workflow

All of the Academy recordings of sessions and assessments were transcribed and annotated using the SayMore program. The transcriptions were then imported into the Fieldworks Language Explorer (FLEx) program in order to use the powerful relational database software to aid in the linguistic analysis. While transcribing, I also copied all variant learner variety utterances into an Excel spreadsheet in order to allow for quick and easy reference. Neither SayMore nor FLEx is designed to handle multiple-speaker recordings. This section describes why and how I used these two programs.

SayMore is a software program created by SIL. The program is designed to create and manage a corpus of language documentation by creating time-aligned transcriptions and assisting with file management. One of the major drawbacks of SayMore is that it can only create single-tiered time-aligned transcriptions, which means it is not designed to transcribe multiple-speaker recordings. I used the SayMore program to transcribe and annotate recordings because the segmentation and annotation tools are quick and easy-to-use (Pennington 2014). SayMore also aids in keeping many file names consistent across the research project to aid in file management (Pennington 2014). To work around SayMore's single-tiered transcriptions, I demarcated each

utterance according to speaker by tagging them with the speaker's initials followed by a colon (e.g. HAP: *chokma* JOH: *chokma*). This allowed me to quickly transcribe sessions without having to use another program, ELAN, to create multi-tiered transcriptions.

While SayMore is not designed to handle multiple-speaker recordings, another program, the EUDICO Language Annotator (ELAN) program is. ELAN is a software program designed for annotating digital video and audio, developed and maintained by the Max Planck Institute for Psycholinguistics (Berez 2007). ELAN is designed to process multiple-speaker transcriptions. In ELAN, each speaker has their own tier for their own time-aligned transcription. I had originally intended to incorporate ELAN to create time-aligned annotations into the workflow. However, I found the workaround I had developed for SayMore to be quicker for processing transcriptions than incorporating ELAN into the workflow. I found the time involved in either segmenting recordings in ELAN or exporting SayMore transcriptions into ELAN and then editing them from a single tier to multiple tiers was more time intensive than my workaround.

FLEx is a language documentation and analysis program created by SIL. FLEx is designed to create a lexical database and morphological parser. I chose to use FLEx because I was already rather familiar with the program and because Chickasaw Nation already had a database in FLEx with over 10,000 linguistic entries. I wanted to use the database to assist in the morphological analysis of the transcriptions by using the parser (Xample parser) function. As mentioned, FLEx is not designed to analyze multi-speaker texts. To work around this, I exported the SayMore transcriptions and then used regular expressions to separate out the speaker lines into separate text files, that is so that each person's utterances in a single session were all in one file together. These files were

then copied into FLEx as texts in the Texts & Words tab. In FLEx, I ran the Xample parser to parse the texts. The parser was set up using the descriptive literature on Chickasaw. Forms that did not parse indicated variation from the variety of Chickasaw described by Munro and Willmond (1994, 2008). I used the Text Markup Tags in FLEx to tag each instance of variation. Using the tags allowed me to make use of FLEx's concordance and complex concordance functions in order to aid in the analysis of variation. Importing all of the transcribed data into FLEx has resulted in the creation of a database and small corpus of Chickasaw texts. All of the data generated during this dissertation will be archived with the Chickasaw Nation in Ada, OK and with the Sam Noble Oklahoma Museum of Natural History in Norman, OK.

Chapter Five: Discussion of Data

This chapter presents the description of the learner variety data from five adult learners of Chickasaw who are acquiring their language through the Chikasha Academy, an immersion program run by the Chickasaw Language Revitalization Program (CLRP). The first section describes the sequences that the learners follow when acquiring specific morphological and morphosyntactic features in Chickasaw, including: agreement, word order, case, negation, tense, questions, and switch-reference. This discussion draws data from all of the learners across their proficiency levels, focusing on describing the developmental stages that the learners follow as they acquire a specific grammatical feature. In particular, the discussion focuses on the initial acquisition stages, since the majority of the data is from novice level learners. The second section describes the novice low, mid, and high and intermediate low proficiency levels as observed during the first year of the Chikasha Academy. The third section discusses native speaker perceptions of learner variation based on data from the Academy sessions and from the results of the grammaticality judgement tasks.

5.1 Order of Acquisition

When acquiring a new grammatical feature in a language, learners usually follow an identifiable order of acquisition. This section describes the sequence of acquisition of some specific grammatical features in Chickasaw, based on an analysis of the learner variety data from the Chikasha Academy.

5.1.1 Agreement

One of the earliest grammatical features that the learners acquire is agreement marking. Recall from Chapter Two (sections 2.2.1, 2.3.1, 2.3.3, and 2.3.5) that Chickasaw has four sets of pronominal affixes: I, II, III-dative, and N. I affixes primarily indicate semantically active intransitive subjects and most transitive subjects. II prefixes indicate non-active intransitive subjects, most transitive objects, and a few transitive subjects. III-dative prefixes indicate indirect and direct objects as well as subjects, most of which could be viewed as semantic datives or experiencers. N prefixes are used for negative subjects on originally I set verbs and replace the hypothetical prefix *ik-* on negative verb stems. II and III-dative affixes also indicate possession on nouns, inalienable and alienable possession respectively. As the N prefixes are used in negation, their acquisition is described in a later sub-section. This sub-section focuses first on the acquisition of person-marking on verbs to indicate subjects and objects and then on nouns to indicate possession.

During the first stage in acquiring person-marking on verbs, novice low learners generally first acquire a one-to-one meaning-to-form correspondence of some affixes. For example, Ofi' Ishto' first acquired the non-active II affix *sa-* with the singular meaning of first person singular subject, later acquiring the active/non-active distinction. During the initial stage, he produced the following variant utterances:

(99) **satoksali Ada.* (JAB 10/26/2015-1.36)[26]
sa- toksali Ada
1SG.II-work Ada
*'I work in Ada.'

[26] Every example in this chapter includes information about where this data can be found in the corpus: a tag that refers to the source, based on the learner's or speaker's initials; the date; the session number; and the line number where the utterance begins.

(100) **samalhtaha.* (JAB 10/27/2015-1.471)
sa- im- alhtaha
1SG.II-DAT- be.ready
*'I'm ready.'

In these examples, Ofi' Ishto' is trying to use the non-active prefix *sa-* to indicate a first person singular subject on all verbs, including active (*toksali*) and dative (*imalhtaha*) verbs. Both of these utterances were re-cast by other learners, as *toksali-li* and *am-alhtaha*. The second stage of the sequence is the acquisition of the active/non-active distinction.

As learners become aware of the active/non-active distinction, they often directly ask how a new verb conjugates. For example, Ofi' Ishto' heard the new verb *hoshowa* 'to urinate' during one session, and asked directly about how to conjugate it, whether it was an active verb, using set I *-li*, or non-active verb, using set II: *sa-hoshowa-li ba' sa-hoshowa*?. During this second stage, learners are able to learn a new verb and make an educated guess about whether the verb conjugates with an active or non-active subject. While their guesses are often correct, Chickasaw has many exceptions to the underlying semantics of the active/non-active distinction (see section 2.3.1). Learners often overgeneralize and produce variant utterances, as shown in examples (101) - (102).

(101) **potawa̲at ihoohma̲ imanompoli ikpobanno.* (BWE 2015/12/01-1.62)
po- tawa̲a- at ihoo- hma̲ im- anompoli ik- po- banna- o
1PL.II- be.two- NOM woman- ACC.INDF DAT- talk HYP- 1PL.II- want- NEG
'We, the both of us, don't want to talk to a woman.'

(102) **chiaalhpí'sa.* (JAB 2016/11/15-1.49)
chi- aalhpí'sa
2SG.II- be.right
'You're right.'

In (101), the verb *tawą́a* ‘be two’ would seem to have a non-active meaning but it unexpectedly conjugates with active affixes. Most number verbs in Chickasaw conjugate with active affixes. Similarly, the verb *aalhpí'sa* in (102), which is frequently used in the Academy sessions in reference to a third person subject (*alhpí'staa*? ‘is it right?’), would seem semantically non-active but it conjugates with the active set I affixes. During this second stage, learners overgeneralize their understanding of the semantic distinction between active and non-active verbs in Chickasaw. As they continue to progress, they learn the exceptions and adjust their learner variety accordingly.

Learners seem to acquire first the active and non-active conjugations and later acquire the pattern of how to conjugate dative verbs. In the initial stage of acquiring the dative affixes, learners begin by conjugating and interpreting all dative verbs as III-dative subject verbs. Recall that the dative can indicate either subject or object, depending on the verb.

(103) *chokka-chaffa' *ama.* (JAB 2015/12/07-01.470)
chokka-chaffa' **am**- a
family 1SG.III.DAT- give
*‘I’m giving them to family.’

(104) **anchokkaalaa ankạna'.* (JAB 2015/12/10-1.180)
am- chokkaalaa am- kạna'
1SG.III.DAT- visit 1SG.III.DAT- friend
*‘I’m visiting my friends.’

In both of these examples, Ofi' Ishto' is using the III-dative affix *am*- to refer to himself as the subject, but both of these verbs usually conjugate with an active subject and III-dative object. Both of these utterances were immediately recast by other learners using the active first person suffix, *ima-li* and *inchokkaalaa-li*, to convey Ofi''s intended

meaning. His utterances conveyed instead the meaning that the first person singular was the object, with (103) translating as ‘they give it to me’ and (104) as ‘they’re visiting me.’ In the second stage, leaners realize that dative affixes often act as objects.

(105) *pomaachikat ‘inchokka''.* (RIG 2015/12/07-1.478)
pom- aachi- kat im- chokka'
1PL.III.DAT- say- SS.CMP DAT- house
‘He told us ‘his house’.’

In using more than one pronominal affix on a verb, learners are of course initially most comfortable with only marking either subject or object on a verb, and later become comfortable with marking both. Most transitive verbs conjugate with active subject affixes and either stative or III-dative object affixes.

(106) *anchipota hachimanǫlila'chi.* (BWE 2016/01/28-1.54)
am- chipota**hachim-** anǫli- **li-** a'chi
1SG.III.DAT- child 2PL.III.DAT- tell- 1SG.I- INC
‘I’m gonna tell y’all about my kids.’

(107) *ishpontaloowa'chi*? (BWE 2016/04/28-1.33)
ish- pom- taloowa- a'chi
2SG.I- 1PL.III.DAT- sing- INC
‘Are you going to sing for us?’

(106) and (107) show Ǫsi' Tohbi''s conjugations of transitive dative verbs that use active subject affixes and III-dative object affixes. Most transitive dative verbs follow this pattern in their conjugation, but not all.

Predicting whether a new dative verb refers to subject or object is difficult, because as described in the second chapter, this pattern is not semantically controlled. Most transitive III-dative verbs conjugate with I active subjects and III-dative objects, but there are some exceptions (described in section 2.3.3), and even advanced learners still overgeneralize with these exceptional III-dative verbs.

(108) **iichimalhtoba'chi* (JOH 2015/11/05-1.129)
ii- chim- alhtoba- a'chi
1PL.I- 2SG.III.DAT- be.paid- INC
*'We will pay you.'

The verb *imalhtoba* means 'be paid' and is an exceptional III-dative verb that has a syntactically motivated dative subject due to historical changes. These III-dative subject verbs are the last exceptions in the dative conjugation patterns acquired by the learners.

The second chapter described a specific set of exceptional III-dative verbs that are used in 'have' constructions (section 2.3.3), which are created through the syntactic Possessor Raising process. Possessor Raising raises the possessor noun to subject position, creating a double-nominative construction and verbs that have both an overtly nominative-marked nominal (the old subject, the possessed noun) and a III-dative marked subject (the new subject, the possessor). The conjugation pattern of these verbs is abbreviated as 3-at,III verbs. As described in the second chapter, some of these verbs have been reanalyzed to be III-dative subject verbs and the old subject no longer has nominative marking, and instead functions like any other object, both syntactically and semantically. Thus this specific set of transitive dative verbs is conjugated with a III-dative subject and an unmarked third person object. Some speakers have reanalyzed the 'have' construction verbs in this way, creating transitive III-dative subject verbs that take third person objects (described in section 2.5.2). The learners similarly acquire this usage from the speakers, as shown in (109) - (111), which are all reanalyzed positional verbs that were originally created via Possessor Raising. Notice that only the III-dative argument is the subject in these constructions.

(109) *ofi' chimántakat i̲'ma?* (HAP)
ofi' chim- **ánta-** kat i̲'ma
dog 2PL.III.DAT- be.located.SG.SBJ- CMP.SS still
'Do you still have a dog?'

(110) *chipota iksamiksho.* (CLH 2015/12/07-1.114)
chipota ik- am- **iksho**
child HYP- 1SG.III.DAT- not.be
'I don't have kids.'

(111) *chipota amą́shwa.* (BWE 2015/12/07-1)
chipota am- **ą́shwa**
child 1SG.III.DAT- be.located.DU.SBJ
'I have two kids.'

All of these 'have' verbs have been reanalyzed as III-dative subject transitive verbs by most speakers. However, not all speakers have reanalyzed all 'have' verbs that have undergone Possessor Raising. Some speakers have retained some of the 'have' verbs in their Possessor Raising forms, where they have two subjects.

(112) *ankana' alhihaat hooankánnohmi.* (HAP 2015/12/07-1.245)
am- kana' alhiha- '- at hoo- am- **kánnohmi**
1SG.III.DAT- friend be.bunch- NMZ-NOM 3PL.SBJ- 1SG.III.DAT- have.several.IND
'I have a bunch of friends.'

In this example, the speaker retains the nominative case marking on the old subject, which is normally lost during reanalysis. Even though learners hear both Possessor Raised 'have' forms and reanalyzed 'have' forms, thus far in the learner variety I have only found examples of the reanalyzed forms, as in (110-111) and (113).

(113) *chimafammi chinkáttohmi?* (JOH 2015/10/26-1.15)
chim- afammi chim- **káttohmi**
2SG.III.DAT- year 2SG.III.DAT- have.several.INT
'How many years do you have?' / 'How old are you?'

Furthermore, the learners instead appear to have extended the reanalysis to all dative verbs created through Possessor Raising. For example, many verbs are described (Munro and Willmond 1994) as being able to undergo Possessor Raising, which results

in a dative marked verb with the double subject construction, as in (112), where both the dative prefix and the noun are the subjects of the clause. But the learners have reanalyzed all Possessor Raised verbs, resulting in reanalyzed 'have' constructions in the learner variety with verbs that the speakers have not reanalyzed. (114) - (116) show examples of some of these innovative reanalyses in the learner variety.

(114) *chipota amoshta*. (JOH 2015/12/15-1)
chipota am- **oshta**
child 1SG.III.DAT- be.four
'I have four kids.'

(115) *chipota tiik antoklo*. (RIG 2015/12/15-1.25)
chipota tiik am- **toklo**
child female 1SG.III.DAT- be.two
'I have two girls.'

(116) *chipota tochchí'na' amáyya'sha* (HAP 2015/12/07-1.204)
chipota tochchí'na-' am- **áyya'sha**
child three- NMZ 1SG.III.DAT- be.located.TPL.SBJ
'I have three children.'

Not all of the speakers use the number verbs in 'have' constructions the way that the learners do in these examples. Speakers seem more likely to use a reanalyzed locational verb, as in the last example (116).

As described in section 2.2.1, almost all nouns in Chickasaw are alienably possessed using III-dative prefixes, except for a small number of verbs that are inalienably possessed using II affixes. Most exceptions are words for body parts or kin, though not every noun in these semantic domains are described as using II prefixes for possession (Munro and Willmond 1994, 2008). As previously described (section 2.5.1), a couple of the speakers in the Chikasha Academy have regularized the semantic motivation of the possession system. These speakers regularly possess all kinship terms with II prefixes, reanalyzing the dative *im-* as part of the verb base, as in *sainki'*, which

is usually possessed as *anki'* for 'my father.[27]' Learners will often similarly overgeneralize in order to regularize kinship possession in the same way as these speakers and use II affixes for all kinship terms.

(117) **sainki'* (JAB 2015/12/15-1)
sa- in- ki'
2SG.II- DAT-father
'my dad'

(118) **saintiik* (JAB 2015/12/15-1)
sa- in- tiik
2SG.II- DAT- sister
'my sister'

(119) **saimo̲shi'* (JAB 2016/09/06-1.129)
sa-im-o̲shi'
2sg.ii-dat-uncle
'my uncle'

Learners will also attempt to further overgeneralize the system, trying to alienably possess body parts that are usually inalienably possessed, a variation which the speakers never make.

(120) *Jerry *i̲hatip*. (CLH 2015/12/02-1.26)
Jerry **im**- hatip
Jerry dat- hip
"Jerry's hip."

(121) **i̲haknip banna, hooba.* (BWE 2016/01/20-1.251)
im- haknip banna hooba
dat- body want seems
'She wants his body, it seems.'

As they continue to learn, the learners become aware of the small number of exceptions in the patterns of possession and adjust their learner grammar accordingly.

[27] In one single session, one speaker alternated between both *sainki'* and *anki'*.

5.1.2 Word Order

During the first stage of learning word order, learners will initially follow a fixed word order of SVO, instead of the typical Chickasaw word order of SOV.

(122) **issi' apa tanchi'.* (JAB 2015/11/12-4.254)
issi' apa tanchi'
deer eat corn
'The deer is eating corn.'

(123) **nashoba hoobanna nani'.* (JAB 2015/12/01/-1.294)
nashoba hoo- banna nani'
wolf 3PL.SBJ- want fish
'The wolves want fish.'

(124) **pi̲sali nashoba oshta* (JAB 2015/12/01-2.282)
pi̲sa- li nashoba oshta
see- 1SG.I wolf four
'I see four wolves.'

Chickasaw objects can occur after the verb, but only if they are marked with accusative case and all nouns in the previous examples, (122) - (124), have no case marking, as Ofi' Ishto' is relying on the fixed word order to mark arguments. All of these utterances were recast by another learner into SOV word order.

The Chickasaw verb is typically last in the sentence, and adverbial words usually occur just to the left of the verb. Learners initially do not follow this pattern and place adverbial words at the end of the sentence.

(125) *chiayokpa kani̲hka̲.* (JAB 2015/12/01-2.315)
chi- ayokpa **kani̲hka̲**
2SG.II- happy very
'You're very happy.'

(126) *sasipokni himmako'sa̲.* (RIG 2015/10/26-1.113)
sa- sipokni **himmako'sa̲**
1SG.I- old right.now
'I'm old right now.'

(127) *haatoko̲ anchokka' choffali ayokpá̲shli kani̲hma̲.* (BWE 2015/12/07-1.291)
haatoko̲ am- chokka' choffali ayokpánchi- li **kani̲hma̲**
and.then.SS 1SG.III.DAT- house clean like- 1SG.I sometimes
'And then I like to clean my house sometimes.'

With more time and input, the learners acquire Chickasaw SOV word order.

5.1.3 Case

In their initial stage of acquisition, learners omit all case-marking, as already seen in some of the examples such as (122) - (124). Learners initially use nominative case marking in high frequency routinized and memorized chunks of the language, as in (128) and (129).

(128) **Kowishto' tikahbi*. (JAB 2015/10/27-1.475)
Kowishto' be.tired
'Kowishto' is tired.'

(129) *holhchifoat Kowishto'*. (JAB 2015/10/27-2.180)
holhchifo- **at** Kowishto'
name- NOM Kowishto'
'His name is Kowishto'.'

Later, learners acquire and productively use the basic nominative case suffix, *-at*.

(130) *hattakat inka̲na' hoyo*. (CLH 2015/12/01-3.157)
hattak- **at** in- ka̲na' hoyo
man- NOM DAT- friend look.for
'The man is looking for his friend.'

(131) *i̲hattakat na̲achi ima*. (JAB 2015/11/12-2.162)
i̲- hattak- **at** na̲achi ima
DAT- man- NOM blanket give
'Her husband is giving her a blanket.'

Even though the accusative case is described as optional and rare, learners in the Academy frequently use the basic accusative case marker *-a̲*.

(132) *chipota tiikat chipota nakni'a̲ sho̲'ka.* (CLH 2016/02/16-1.81)
chipota tiik- at chipota nakni'- **a̲** sho̲'ka
child female- NOM child male- ACC kiss
'The girls are kissing the boys.'

(133) *ashaashlitok micha takaashlitok ǫ̲naafka**a̲**.* (BWE 2015/12/10-1.34)
ashaachi- li- tok micha takaachi- li- tok pom- naafka-**a̲**
put.up.TPL.OBJ- 1SG.I- PST and hang.up- 1SG.I- PST 1PL.III.DAT- clothes-ACC
'I put up and hung up our clothes.'

In (133), Ǫ̲si' Tohbi' has moved the object after the verb and appropriately marked it with accusative case, while in (132), Kowishto' is using accusative case in an unobligatory context. As mentioned, speakers themselves frequently omit accusative case and will also regularly omit nominative case, usually with intransitive verbs where the subject is clear due to context.

(134) *sattibaapishi tiik toklotok.* (HAP 2015/12/15-1.184)
sa- ittibaapishi tiik toklo- tok
1SG.II- siblings female be.two- PST
'My sisters were two in number.'

(135) *Kowishto' palhki.* (STS)
Kowishto' fast
'Kowishto' is fast.'

Even after acquiring nominative case marking, learners will also frequently omit nominative case on intransitive verbs.

(136) *amofi' yaa ayokpánchi.* (CLH 2016/02/09-3.18)
am- ofi' yaa ayokpánchi
1sg.III.DAT- dog cry like
'My dog likes to cry.'

Chickasaw has several other sets of nominative and accusative case suffixes that indicate other meanings in addition to case, such as contrastive or focus suffixes (see section 2.2.2). After acquiring the basic case suffixes, in the second stage, learners acquire the other case suffixes with their additional functions through further and often targeted exposure.

One nominal suffix, *-akookya*, replaces case suffixes when used with nouns. The suffix *-akookya* (sometimes *-akya*) translates as 'too' or 'also' and is described in

section 2.2.2. This suffix can attach to any noun or pronoun and replaces nominative or accusative case suffixes, e.g. *ishki'akookya ofi' pisa* ‘his mom sees the dog, too’. The learners appear to have reinterpreted *-akookya* as a verbal suffix and have extended its use to verbs.

(137) *anchipota ibaachokoshkomo ayokpa̲shliakookya*. (BWE 2015/12/07-1.288)
am- chipota ibaa- chokoshkomo ayokpánchi- li- **akookya**
1.III.DAT- child with- play like- 1SG.I- also.too
‘I also like to play with my kids.’

(138) *nanna hooaachikma̲, ilaachiakookya.* (JOH 2016/02/25-1.38)
nanna hoo- aachi- kma̲ il- aachi- **akookya**
something 3PL.SBJ- say- IRR.DS 1PL.I- say- also.too
‘If they say something, then we say it, too.’

The speakers would instead, in a similar context, attach *-akookya* to a pronoun, as in ().

(139) *ana'akookya taani iksabanno*. (STS 2016/08/31-1.10)
ana'- **akookya** taani ik- sa- banna- o
1SG.I- also.too get.up HYP- 1SG.II-want- NEG
‘I also don’t want to get up.’

The speakers do not react to the variant learner use of *-akookya* and all of the learners, including those of the intermediate and advanced proficiency levels, use *-akookya* with verbs more often than with nouns.

5.1.4 Negation

Chickasaw has two ways to negate any verb. One process involves using the auxiliary verb *ki'yo*, where the auxiliary occurs after any fully inflected verb to indicate a negative utterance. The other negative form involves affixing the hypothetical prefix *ik-* (which is replaced by the N prefix when conjugating certain verbs) and the negative verb suffix *-o*, which causes certain regular phonological changes to many verb stems.

The two negative forms are described as occurring in free variation with no difference in meaning (Munro and Willmond 1994, 2008).

In the first stage of acquisition, learners acquire *ki'yo* as meaning any form of negation and use it to convey any negative utterance.

(140) *piini' wakaa'* ***ki'yo***. (JAB 2015/12/07-1.424)
airplane not
'Not airplane.'

(141) *asabika ki'yo.* (RIG 2015/10/27-1)
sa- abika **ki'yo**
1SG.II- be.sick not
'I'm not sick.'

The auxiliary verb *ki'yo* is also used as the negative response 'no' and is thus a high frequency form that is acquired early. In the next stage, the learners acquire memorized chunks of high frequency complex negations. In the specific context of the Academy, such high frequency verbs included *iksabanno* 'I don't want it/to do it' and *iksamiksho* 'I don't have it/them.'

(142) *piini' wakaa' iksabanno*. (JAB 2015/12/07-1.428)
piini' wakaa' **ik-** sa- banna- **o**
airplane HYP- 1SG.II- want- NEG
'I don't want the airplane.'

Example (142) occurs in the same session as (140), after the other learners converse with Ofi' Ishto' about what he is trying to convey and remind him of the word *iksabanno*.

(143) *ta'osso nanna iksamikshohmat, nanna ki'yo.* (CLH 2015/12/07-1.175)
ta'osso nanna ik- am- iksho- hmat nanna ki'yo
money something hyp- 1SG.III.DAT- not.be- IRR.SS something not
'If I don't have any money, nothing.'

This last example (143) shows the use of a rote memorized chunk involving a negative verb and the use of *ki'yo* in a variant form. Kowishto' had memorized the chunk *ta'osso*

nanna iksamikshohmat meaning ‘If I don’t have any money…’ from its use in a previous session that was focused on completing this phrase as part of a conversation exercise. But Kowishto' innovated how to convey the second clause and relied on *ki'yo* as the negation. The verb *ikimiksho* ‘not to have’ would likely have conveyed his intended meaning more clearly.

In the third stage, learners become comfortable using complex negation, deriving and conjugating negative verbs using the N prefixes.

(144) *aabi akayokpa'cho*. (CLH 2015/10/27-1.403)
aabi **ak**- ayokpánchi- o
paint 1SG.N- like- NEG
‘I don’t like to paint.’

(145) *hachikhaklokitok*. (BWE 2015/10/27-1.521)
hachik- haklo- ki- tok
2PL.N- hear- LNK- PST
‘Y’all didn’t hear him.’

(146) *akakostini'cho*. (RIG 2016/02/16-1.7)
ak- akostiníchi- o
1SG.N- understand- NEG
‘I don’t understand.’

(147) *chikto'lo*. (JOH 2015/12/15-1.118)
chik- to'li- o
2SG.N- play.ball- NEG
‘You don’t play ball.’

Most of the verbs in these examples are not high frequency verbs in the Academy sessions, but rather the learners derived the negative verb forms spontaneously.

5.1.5 Tense, Mode, and Aspect

In the first stage of acquisition, novice learners rely on temporal adverbs to convey tense rather than through the use of tense suffixes.

(148) *abika oblaashaash*. (JAB 2016/01/20-1.440)

be.sick yesterday
'He (was) sick yesterday.'

(149) **obyakma malilili.* (JAB 2015/11/12-1.198)
obyakma malili- li
tonight run- 1SG.I
'Tonight I (will) run.'

In the second stage of acquisition, learners acquire the simple past suffix *-tok* and irrealis aspectual suffix *-a'chi*, which is used to refer to the future in Chickasaw. Learners rarely omit either of these affixes once they are acquired.

(150) *haknip kanalli ayala'chi*. (JAB 2016/01/20-1.461)
haknip kanalli aya- li- **a'chi**
body move go- 1SG.I- INC
'I'm gonna exercise.'

(151) *ikanompo'lokitok.* (RIG 2016/02/15-1.43)
ik- anompoli-o- ki- **tok**
HYP- speak- NEG- LNK- PST
'He didn't speak.'

As learners progress in the Academy, they later acquire the remote past suffix *-ttook*, and other modal suffixes, *-a'ni* and *-a'hi* (described in section 2.3.4). These other tense and modal suffixes occur in very specific contexts and constructions. The learners acquire these through semi-structured conversation exercises designed to practice their usage. For example, one session in the Academy was spent practicing the irrealis switch reference same-subject suffix *-kmat* in combination with the potential modal suffix *-a'ni* on past tense verbs, resulting in a focus on the pattern *íshlitokmat* 'if I had…,' where learners took turns drawing vocabulary cards and then creating an appropriate sentence using the term. For example, *ahi' íshlitokmat, apala'ntok* 'if I had a potato, I would eat it.' Thus learners acquire the less frequent tense and modal suffixes through targeted exposure and practice.

Aspect in Chickasaw is indicated through complex internal modifications to the verb stem resulting in derived aspectual stems called grades in Muskogean languages (described in section 2.3.4). Learners initially acquire grade forms as a memorized verb stem, often not aware of the process that derived the grade form from the base verb. For example, the verb *ishi*, which means 'get,' has a grade form that indicates an ongoing action, *i̲shi*. Learners initially acquire *ishi* as meaning 'get' and *i̲shi* as 'hold,' only later becoming aware how the two verbs are derived and related through aspect. Learners that have reached the advanced proficiency levels are productive with grade forms.

5.1.6 Questions

In the first stage of creating questions, novice learners rely solely on the use of rising intonation and context to indicate that they are asking a question.

(152) *chibaa-apatok*? (CLH 2015/10/27-1.80)
chi- ibaa- apa- tok
2SG.II- with- eat- PST
'Did he eat with you?'

(153) *Q̲si'at tikahbi*? (RIG 2015/10/27-2.203)
Q̲si'- at tikahbi
Q̲si'- NOM tired
'Is Q̲si' tired?'

There is no difference between these interrogative examples and their indicative counterparts, aside from intonation.

In the second stage, learners begin acquiring the many Chickasaw question words.

(154) *katekta ishiyya'chi?* (RIG 2016/01/14-1.49)
katekta ish- aya- a'chi
where 2SG.I- go- INC
'Where are you going?'

(155) *nanta ishpatok?* (CLH 2015/12/02-1.37)
nanta ish- apa- tok
what 2SG.I- eat- PST
'What did you eat?'

Many Chikasha Academy sessions focus on using the question words and learners quickly become productive with them.

In the third stage, the learners acquire the interrogative suffixes *-taa* for present tense questions and *-taam* for past tense questions, sometimes using both an interrogative suffix and a question word in the same clause, as in (156).

(156) *kata chibaaimpataam?* (BWE 2016/01/13-1.156)
kata chi- ibaa- impa- **taam**
who 2SG.II- with- dine- PST.Q
'Who ate with you?'

(157) *nanta ishpataam?* (CLH 2016/01/13-1.171)
nanta ish- apa- **taam**
what 2SG.I- eat- PST
'What did you eat?'

However, all of the speakers, and consequently all of the learners, in the Chikasha Academy frequently omit the interrogative suffixes *-taa* and *-taam*, which are described as required for creating a yes/no question without the use of a question word. Speakers and learners will frequently rely on context and rising intonation to indicate that they are asking a question, without the use of *-taa*, *-taam*, or any other question word.

(158) *"Orange bowl" aya chibanna?* (HAP 2015/12/07-1.160)
"Orange bowl" aya chi- banna
go 2SG.II- want
'Do you want to go to the Orange Bowl?'

(159) *chinkaniya?* (STS 2015/12/10-1.66)
chim- kaniya
2SG.III.DAT- lose
'Did you lose it?'

(160) *ishakostiníchi?* (RIG 2016/08/02-1.34)
ish- akostiníchi
2SG.I- understand
'Do you understand?'

(161) *Ihoo' Himitta', anompilbashsha' asilhha chibanna?* (JAB 2016/01/28-1.3)
Ihoo' Himitta' anompilbashsha' asilhha chi- banna
Ihoo' Himitta prayer ask.for 2SG.II- want
'Ihoo' Himitta', do you want to say the prayer?'

The use of question words and suffixes in question formation was further examined the grammaticality judgment tasks.

5.1.7 Connecting Clauses

In their acquisition of Chickasaw, learners quickly desire the ability to connect clauses and produce longer strings of discourse. When they first begin acquiring Chickasaw, learners can only produce disconnected clauses, not having any way of connecting them. Chickasaw has two connective words that mean 'and,' *micha* and *áncha*, which are described as being used between nouns. For connecting most clauses, Chickasaw is described as using a switch-reference system with verbal suffixes (see section 2.4.2). In the first stage of acquiring connectives, the learners make frequent use of the freestanding connective words in Chickasaw, initially preferring a more analytic construction to the inflectional morphology of the switch-reference system. Learners initially acquire words like *micha* and *áncha* as having a one-to-one meaning-to-form correspondence and use these words in all contexts to connect nouns and verbs.

(162) *kapochcha' itti' micha to'wa' ikbila'chi.* (CLH 2015/12/07-1.152)
kapochcha' itti' **micha** to'wa' ikbi- li- a'chi
stickball stick and ball make- 1SG.I- INC
'I'm going to make stickball sticks and balls.'

(163) *sayokpa micha *tikahbi kan̲ihka̲.* (JAB 2015/11/12-1)
sa- ayokpa **micha** tikahbi kan̲ihka̲
1SG.II- be.happy and be.tired very
'I'm happy and (I'm) very tired.'

(164) *chitikahbi áncha chibika?* (RIG 2015/10/27-1.662)
chi- tikahbi **áncha** chi- abika
2SG.II- be.tired and 2SG.II- be.sick
'Are you tried and sick?'

Speakers, though not as frequently, will also occasionally use either *micha* or *áncha* to connect clauses instead of using switch-reference suffixes.

(165) *na̲achi'at homayyi áncha ihoohmat* (HAP 2016/01/20-1.21)
na̲achi'- at homayyi **áncha** ihoo-hmat
blanket- NOM pink and woman-NOM.INDF

i̲naafokha aanosikat homma.
im- naafokha aanosi- kat homma
DAT- clothes bed-NOM.CLS red

'The blanket is pink and the woman's bedclothes are red.'

The above example is describing a picture from a children's storybook that was used in one of the sessions as the focus of conversation.

During this initial stage, the learners will also make use of the paragraph-level switch-reference words, which are described as being used to section off larger stretches of discourse (described in section 2.4.3). The first pair that they acquire seems to be *haatoko̲*/*haatokoot*, which is the pair most frequently used by speakers (Walker 2000).The learners will use these words to also connect single clauses, again initially preferring an analytic structure over the inflection of the switch-reference system.

(166) *oklhiliaash nosila'ni ki'yo,* (BWE 2015/10/27-1.366)
oklhiliaash nosi-li-a'ni ki'yo
last.night sleep-1SG.I-POT not

**haatookọ nittaki yappakọ satikahbitaha*
haatookọ nittaki yappakọ sa-tikahbi-taha
so.then.DS morning this 1SG.I-be.tired-be.all.AUX

'Last night I couldn't sleep and then this morning I'm all tired out.'

In this example, Ọsi' Tohbi' has used the different-subject connective *haatokọ* even though the two clauses have the same subject. With the paragraph-level connectives like *haatokọ*, the different-subject forms are used in higher frequency in conversation, as they are usually used to indicate a shift in topic in conversation (Walker 2000). In this initial stage of acquisition of connectives, it seems leaners acquire *haatokọ* as having a one-to-one meaning-to-form structure, acquiring it as a connective word but without the switch-reference meaning. For speakers, the use of switch-reference suffixes usually far outnumbers the instances of these connective words (Walker 2000), but in the early stages of acquisition, the learners use the free-standing words far more frequently than the suffixes.

The first connective suffix that the learners acquire is the coordinating suffix -*hookya* (described in section 2.4.1), which does not indicate switch-reference and can be used to connect any two clauses together. Thus -*hookya* has a one-to-one meaning-to-form that the learners quickly acquire.

(167) *anchokmahookya satikahbi.* (JAB 2016/01/05-1.87)
am- chokma- **hookya** sa- tikahbi
1SG.III.DAT- be.well- but 2SG.II- be.tired
'I'm well but I'm tired.'

The learners also frequently make use of -*hookya* as a freestanding word, analogous to their use of *micha*, *áncha*, and *haatokọ*.

(168) *hookya amalhkaniya*. (RIG 2015/10/26-1.31)
hookya am- alhkaniya
but 1SG.III.DAT- forget
'But I forgot.'

(169) *hookya, Chikashshiyaakni' aatoksali?* (JOH 2016/02/24-1.54)
hookya Chikashsha- im- yaakni' aa- toksali
but Chickasaw- DAT- land LOC- work
'But she works for Chickasaw Nation?'

Speakers will similarly use *-hookya* in this manner, but not as frequently as learners. Thus the speakers, and consequently the learners, in the Chikasha Academy appear to have reanalyzed the coordinating suffix *-hookya* into a coordinating word *hookya*, analogous to the freestanding switch-reference words like *haatoko*. Speakers often use both to begin a new utterance, particularly to section off their discourse.

The first switch-reference suffix that the learners in the Chikasha Academy acquired was *-cha*, the same-subject suffix that is often translated as 'and.'

(170) *satikahbicha anchokma*. (RIG 2015/10/27-1.788)
sa- tikahbi- **cha** am- chokma
1SG.II- be.tired-CNJ.SS 1SG.III.DAT- be.well
'I'm tired and I'm well.'

(171) *okmilolicha hopoba.* (BWE 2016/1/20-1.194)
okmiloli- **cha** hopoba
be.cross.eyed- CNJ.SS be.hungry
'He's cross-eyed and hungry.'

In their acquisition of *-cha*, the learners then went through a brief stage where they tried to overgeneralize *-cha* as 'and' in all contexts, attaching this to all verbs and even to nouns in place of *micha* or *áncha*. This usage could suggest that the learners reanalyzed *cha* as a shortened form of the other high frequency forms for expressing 'and,' the nominal connectives *micha* and *áncha*.

(172) **Chikashsha**cha** Chalakki' okloshi'**cha** naahollo' saya.* (JAB 2015/12/07-1)
'I'm Chickasaw and Cherokee tribes and white.'

However, this usage of *-cha* represented a small part of a U-shaped learning sequence and the learners all quickly went back to using *micha* between nouns as shown in (173), and using both *micha* and *-cha* between clauses.

(173) *Chikashsha* ***micha*** *Chalakki' okloshi'* ***micha*** *naahollo' saya*. (JAB 2015/12/15-1)
'I'm Chickasaw and Cherokee tribes and white.'

When first acquiring the switch-reference suffixes, the learners often acquire the same-subject suffix before the different-subject suffix. Speakers, when using switch-reference suffixes in conversation, have shown to have a strong preference for creating strings of same-subject clauses, using the same-subject switch-reference suffixes in much higher frequency than the different-subject suffixes (Walker 2000). A similar trend was found in the Academy session data and the higher frequency of same-subject suffixes probably explains why they are often acquired first in the sequence.

In the first stage of acquiring switch-reference suffixes, learners seem to initially acquire the switch-reference suffix with a singular meaning, only relating to clausal relationships. In other words, learners first acquire only one form of a switch-reference pair and with only one meaning, the connection between clauses, initially ignoring the switch-reference meaning of these suffixes and creating variant utterances as in (174).

(174) *Chishshanompa' sathanashkat* asayokpa*. (BWE 2015/12/07-1.284)
Chishsha- anompa' sa- ithanachi- **kat** sa- ayokpa
Chickasaw- language 1SG.II-teach- CMP.SS 1SG.II- be.happy
'I'm happy that they're teaching me Chickasaw.'

Even though the two verbs in (174) are inflected with the same pronominal prefix, *sa-*, this non-active prefix is referring to the subject of the main clause but the object of the complement clause, indicating different subjects between the clauses. The complementizing suffixes *-kat*/*-ka̲* are some of, if not the most, commonly used of the

switch-reference suffixes in conversation (Walker 2000). They have many functions and the earliest one acquired by learners is their use in creating a complement clause with certain verbs, like *asayokpa* in (174). Learners do eventually acquire the full range of meaning and form of switch-reference suffixes and are able to use them productively, as shown in (175).

(175) *Chikashshanompa' ilanompolika asayokpa*. (BWE 2016/04/01-1.81)
Chikashsha-anompa' il- anompoli- **ka** sa- ayokpa
Chickasaw-language 1PL.I- speak- CMP.DS 1SG.I- be.happy
'I'm happy that we're speaking Chickasaw.'

Another early acquired switch-reference suffix is *-haatoko* which indicates 'because' in addition to different-subject and to being a subordinating suffix. Learners initially do not realize the impact that the subordinating suffixes have depending on which clause they are attached to and create variant utterances as in (176). Learners are likely initially trying to use all switch-reference suffixes analogously to the first acquired connective suffix, *-hookya*.

(176) *ihooat kanihka ayokpahootoko* hattakat naachi imatok.*
haatoko ihoo- at kanihka ayokpa- **hootoko** hattak- at naachi ima-tok
and.then woman- NOM really be.happy- because.DS man- NOM blanket give-PST
*'And then the woman is really happy because the man gave her a blanket.'
(BWE 2015/11/12-2.248)

While Osi' intended to convey the above gloss, the subordinating effect of *-haatoko* on that clause instead meant 'Because the woman is happy, the man gave her a blanket.' A speaker recast Osi' Tobhi''s variant utterance using *-na*, the different subject coordinating suffix, which worked well on that clause.

The Academy curriculum is semi-structured so that some sessions can focus on providing targeted exposure and practice to the learners. Often, specific switch reference suffixes are the target of such sessions. For example, one session in the

Academy was spent practicing the irrealis suffixes *-kmat/kma* with the pattern *íshlitokmat* ‘if I had…’.

5.2 Learner Varieties

This section provides a brief sketch of the Chickasaw learner varieties categorized according to proficiency levels, which were determined by the assessments performed by the CLRP. The proficiency levels include novice, intermediate, and advanced, each with three sublevels of low, mid, and high. Ofi' Ishto' began the Academy in the fall of 2015 with minimal previous experience with Chickasaw as a novice low learner. After one year, he progressed to novice high, almost intermediate low, when he was assessed in the fall of 2016. Kowishto' and Itti' Okchamali' both began the Academy as novice mid learners, having had previous immersion experience with the Master-Apprentice program, and progressed to intermediate low by the fall of 2016. Qsi' Tohbi', who also had participated in the Master-Apprentice program, began the Academy as an intermediate low learner and progressed to intermediate high by the fall of 2016. All of these learners have continued in the Chikasha Academy beyond the fall of 2016 and have progressed further in their proficiency levels. The research project ended data collection after one full year of the Academy recordings, from October of 2015 to October of 2016.

This analysis focuses particularly on Ofi' Ishto', who began the Academy as a novice low learner with no previous significant experience with Chickasaw. The description of proficiency levels here focuses on novice low, novice mid, novice high, and intermediate low. The descriptions of each proficiency sublevel are centered on

narrative texts told by a learner at that particular proficiency sublevel. The texts showcase the abilities of the learners to express themselves at each particular level.

The CLRP assessed all learners when the Academy began in October 2015 and then again in February and November of 2016. The learners assessed themselves by using the "can-do" statements in January of 2016. Full transcripts of Ofi' Ishto''s three oral assessment interviews are included in Appendix C. Lokosh, the CLRP director, is an advanced high level learner who participated intermittently in the Academy sessions. He also performed two of the three oral assessments of the learners during their first year.

5.2.1 Novice Low

All of the data for the novice low variety come from one learner, Ofi' Ishto', who began the Academy with minimal previous experience. The first narrative is an example of an early novice low text, as Ofi' Ishto' had only experienced less than five hours of immersion. This text occurs at the end of his second day of Academy immersion, when he was asked the question *obyahmą nanta ishkatihma'chi* 'what are you going to do tonight?'. All of the other learners and speakers had already been asked and answered this question.

(177) **obya inkąna' pisa. micha chokka'. impa. nosi.*
night friend see and family eat go.to.sleep
'(To)night (I'm going to) see (my) friends. And (my) family. (I'll) eat. (I'll) go to sleep.'

This early sample of the novice low variety does not use any inflection (with no agreement marking, tense, connectives, or switch-reference), but instead relies on the lexical items that Ofi' had acquired during his first day. Ofi' answers the question as best

he can using what he knows, and following the core principle of the Chikasha Academy: *Chikasha illa* or ‘only Chickasaw.’ Obviously Ofi' Ishto' had not acquired any Chickasaw inflection after less than two days of immersion.

The second text occurred after six weeks in the Academy and thus may be categorized as an example of a later novice low text. This text is in response to a similar question, *oklhiliaash nanta ishkatihmitaam*? ‘what did you do last night?’. Again, Ofi' Ishto' is answering this question after all other learners and speakers have responded and some of the forms that he uses were just acquired.

(178)(a) *haknip *kanallitok hanná'li “o’clock”.*
haknip kanalli- tok hanná'li “o’clock”.
body move- PST six
*‘I exercised (at) six o’clock.’

(b) **anchokkaalaa ankg̲ana'*.
am- chokkaalaa am- kg̲ana'
1SG.III.DAT- visit 1SG.III.DAT- friend
*‘I visited my friends.’

(c) **ishko oka' panki'*.
drink water grape
*‘I drank wine.’

(d) *anchokka' ayalitok*.
am- chokka' aya- li- tok.
1SG.III.DAT- house go- 1SG.I- PST
‘I went home.’

(e) *nosilitok*.
nosi- li- tok
sleep- 1SG.I- PST
‘I went to sleep.’

(f) *yammak illa*.
that just
‘That’s all.’ (JAB 2015/12/10-1.177)

Ofi' is able to inflect for subject and tense on the two high frequency verbs in (e) and (f). Ofi' is aware of the active/non-active distinction in Chickasaw but is still learning the full pattern of dative inflection, as shown in (b). In (a) - (c), he uses SVO word order on these utterances that he has innovated, although in (d), a high frequency utterance that he has used before, he keeps the verb final. Notice that in (c), when Ofi' uses some vocabulary that he had just learned, he uses no inflection, resorting to speech more similar of his early novice low forms.

Everyone in the Academy session understood what he was trying to convey with his utterances and he is told *chokma* ‘good’ at the end of this short narrative, before the other learners recast (a) to *kannallilitok,* (b) to *inchokkaalaalitok,* and (c) to *ishkolitok* to include the missing active subject and past tense inflection.

5.2.2 Novice Mid

This text occurred after Ofi' Ishto' had been in the Academy for around five months. This text was produced in response to the question *nittaki nanta ishkatihmitaam?* ‘what did you do this morning?’.

(179)(a) *saokchatok hashi' kanalli hanná'li.*
sa- okcha- tok hashi' kanalli hanná'li.
1SG.II- be.awake- PST hour six
‘I woke up at six o’clock.’

(b) *kafi' ikbilitok.*
kafi' ikbi- li- tok.
coffee make- 1SG.I- PST
‘I made coffee.’

(c) *kafi' ishkolitok.*
kafi' ishko- li- tok
coffee drink- 1SG.I- PST
‘I drank coffee.’

(d) *toksali' mintilitok.*
toksali-' minti- li- tok
work- NMZ come.to- 1SG.I- PST
'I came to work.'

(e) *sahopobatok.*
sa- hopoba- tok
1SG.II- be.hungry- PST
'I was hungry.'

(f) *ayalitok "Sonic".*
aya- li- tok
go- 1SG.I- PST
'I went to Sonic.'

(g) *"burrito" apalitok.*
apa- li- tok
eat- 1SG.I- PST
'I ate a burrito.'

(h) *yammak illa.* (JAB 2016/03/22-1.74)
that just
'That's all.'

Ofi' Ishto' has acquired the active/non-active distinction and makes use of both active, in (b,c,d,f, g), and non-active, in (a,e), verbs, all appropriately inflected. Most of the utterances follow the expected SOV word order, as in (b,c,d,g). (a) and (f) have a variant non-verb-final word order. There is a noticeable lack of connectives or switch-reference suffixes, as Ofi' has not yet acquired these forms.

5.2.3 Novice High

This text occurred after Ofi' Ishto' had been in the Academy for a little over a year, around thirteen months. This was in response to the question *oblaashaash nanta ishkatihmitaam?* 'what did you do yesterday?'.

(180)(a) *oblaashaash hashi' kanalli' hánna'li saokchatok, micha taanilitok.*
oblaashaash hashi' kanalli' hánna'li sa- okcha- tok micha taani- li- tok
yesterday hour six 1SG.II- be.awake- PST and get.up-1SG.I-PST
'Yesterday I woke up at six o'clock and I got up.'

(b) *kafi' ikbilitok*.
kafi' ikbi- li- tok
coffee make- 1SG.I- PST
'I made coffee.'

(c) *oka' yopilitok*.
oka' yopi- li- tok
water swim- 1SG.I- PST
'I bathed.'

(d) *aatoksali' onalitok hashi' kanalli' ontochchí'na*.
aatoksali' ona- li- tok hashi' kanalli' ontochchí'na
work arrive- 1SG.I- PST hour eight
'I arrived to work at eight o'clock.'

(e) *waaka' nipi' ittalatta'a' apalitok*.
waaka' nipi' ittalatta'a- ' apa- li- tok
cow meat be.piled.up- NMZ eat- 1SG.I- PST
'I ate a hamburger.'

(f) *oklhiliaash holba' aapisa' pisalitok*.
oklhiliaash holba' aapisa' pisa- li- tok
last.night television look.at- 1SG.I- PST
'Last night I watched TV.'

(g) *fohalitok*.
foha- li- tok
rest- 1SG.I- PST
'I rested.'

(h) *nosilitok hashi' kanalli' awa-chaffa*.
nosi- li- tok hashi' kanalli' awa-chaffa
sleep- 1SG.I- PST hour and-one
'I went to sleep at eleven o'clock.'

(i) *yammak illa*. (JAB 2016/11/15-1.62)
that just
'That's all.'

Ofi' uses past tense marking on every verb in this short narrative. Ofi' is in the middle of altering his understanding of word order in Chickasaw, as shown by his variations in word order between (a), (d), and (h). Ofi' is in the first stage of acquiring connectives and is using *micha* to connect clauses, as in (a).

5.2.4 Intermediate Low

In this example text of the intermediate low variety, Osi' Tohbi' was prompted to tell a story based on a picture in a storybook that the session had been focused on. Osi' tells this short story in (181).

(181)(a) *haatoko hattakat naachi íshi.* (BWE 2015/11/12)
haatoko hattak- at naachi íshi
and.then.DS man- NOM blanket hold
'And so the man is holding a blanket.'

(b) *ihooat ayokpacha híkki'ya, hooba.*
ihoo- at ayokpa- cha híkki'ya hooba
woman- NOM be.happy- and.SS stand.SG seems
'The woman is happy and standing there, it seems.'

(c) *haatoko hattakat tawáacha hoohíkki'ya.*
haatoko hattak- at tawáa- cha hoo- híkki'ya
and.then.DS man- NOM be.both- and.SS 3PL- stand.SG
'And so both people are standing there.'

(d) *haatoko ihooat stokchank yoklicha híkki'yaakookya*.
haatoko ihoo- at stokchank yokli- cha híkki'ya- akookya
and.then.DS woman- NOM watermelon grab- and.SS stand.SG-also.too
'And then the woman grabs the watermelon and she's standing, too.'

(e) *haatoko hooittatobba*.
haatoko hoo-ittatobba
and.so.DS 3PL- RECP.trade
'And so they trade with each other.'

(f) *haatoko hattakat stokchank íshicha ayokpa, hooba.*
haatoko hattak- at stokchank íshi- cha ayokpa hooba
and.then.DS man- NOM watermelon hold- and.SS be.happy seems
'And then the man is holding the watermelon and he's happy, it seems.'

(g) *haatoko ihooat naachi íshicha ayokpa*.
haatoko ihoo- at naachi íshi- cha ayokpa
and.then.DS woman- NOM blanket hold- and.SS be.happy
'And then the woman is holding the blank and she's happy.

(h) *haatoko ihooat kanihka ayokpahootoko* hattakat naachi imatok*.
haatoko ihoo- at kanihka ayokpa- hootoko hattak- at naachi ima- tok
and.then.DS woman- NOM really be.happy- because.DS man- NOM blanketgive- PST
*'And then the woman is really happy because the man gave her a blanket.'

At the intermediate low level, this text shows how these learners are productive with their use nominative case, tense, and word order. This text exemplifies Ọsi'’s early productive use of switch-reference, one of the key grammatical features that differentiates intermediate and novice proficiency levels in Chickasaw. Ọsi' uses the coordinating same-subject suffix -*cha* in (b,c,d,f,g). In trying to use the recently acquired subordinating suffix -*haatokọ* in (h), Ọsi' does create a variant utterance that conveys a different message than he intended, which is identical to example (176) that was already discussed in the previous section.

5.3 Speaker Perceptions of Learner Variations

The speakers in the Chikasha Academy very rarely correct the learners when they produce a variant utterance, even if the variation is not one used by any of the speakers. The first section describes how speakers respond to variant utterances during Chikasha Academy sessions, specifically which sorts of variation they seem more likely to overtly correct than others. The second sub-section describes the results of the grammaticality judgment tasks (GJTs) with speakers. Because speakers rarely react to variant utterances during Academy sessions, the GJTs were designed to elicit speakers' responses to many of the learner variations that invoked no response during Academy sessions.

5.3.1 Corrections during Sessions

Most of this chapter has been spent describing the variations found in the learner varieties of learners in the Chikasha Academy. During Academy sessions, speakers frequently hear all of this variation from the learners, but do not often react to much of

it. On average, only about a third of the variant forms produced by the learners receive any attention from either their fellow learners or fellow speakers, and learners were much more likely to respond than a speaker. Speakers very rarely overtly correct a learner due to a variation in their use of Chickasaw.

When they did react a learner variation, speakers were overwhelmingly most likely to correct a learner if their variation resulted in a lexical error, by which their variation in pronunciation created a nonsensical utterance or their variation in lexical choice conveyed a different message than intended. (182) is a typical example of the type of learner variation that was most frequently overtly addressed by a speaker.

(182) *Chikashshiyaakni' *toksalila'chi.* (BWE 2015/12/07-1.310)
Chikashshiyaakni' toksali-li-a'chi
Chickasaw.nation work-1SG.I-INC
'I work (at) Chickasaw Nation.'

This is an example of a lexical error, where the learner is using an intransitive verb *toksali* 'work' to refer to working for someone. A speaker recasts his utterance to *intoksalila'chi*, a transitive verb meaning 'work for.' Speakers reacted to learner variety variations not only by overtly correcting them, but also often by inquiring into what the learner is trying to say. (183) shows an example of a speaker reacting to a lexical variation from one of the learners and after determining what the learner is trying to say, recasting the initial utterance.

(183) R: *anchipota iskanno' pist *ayatok.*
'They went to see my little child.'

S: *aya ba' ona?*
'they went or they came (there)?'

R: *oh, ona.*
'oh, they came (there).'

S: *pist onatok.*
'They came (there) to see him.' (STS and RIG 2015/12/10-1.141)

Chickasaw has many motion verbs and learners generally first acquire the verb *aya* meaning 'go' and then use it to refer to all forms of movement. In this example, speaker Imo̲shi' inquires into what learner Itti' Okchamali' is trying to say, whether his visitors came to his home or if they went to another location, since Itti' Okcahamli' had just been describing the family members who were visiting him over the weekend.

Speakers, and other learners, also most frequently reacted to learner variations when they used a variant pronominal affix on a verb. When learners used a variant pronominal affix, the resulting utterance usually created either a nonsensical form or something entirely different than intended.

(184) **samalili*. (JAB 2016/10/26)
'I ran.'

(185) **imaashlihmat*… (RIG 2016/01/20-1.445)
'He told me that…'

The utterance in (184) intended to mean 'I ran' actually meant 'he ran from me' and was quickly recast to *malili-li* using the active affix (*-li*) instead of the non-active affix (*sa-*). The use of the different affix on (185) resulted in the learner instead saying 'I told him that,' and this utterance was recast to *amaachikat* to convey the intended meaning of 'he told me that'. The early acquisition of the distinction between the active and non-active conjugation patterns of verbs is likely related to the trend of variant pronominal affix usage being frequently corrected.

Because speakers so rarely reacted to learner variations, but the speakers are themselves considered the true experts of the language, grammaticality judgments tasks

were designed and administered in order to learn more about the speakers' perceptions of some of the learner variety variation.

5.3.2 Grammaticality Judgment Tasks

As described in the previous chapter, grammaticality judgments tasks (GJTs) were designed to gauge the speakers' perceptions of variation, particularly of variants more commonly and frequently found in the learner varieties than in the varieties of the speakers themselves. Three GJTs were created and administered to five speakers. Each GJT included about a dozen pairs of utterances. Each utterance in the pair differed by only one variation. One utterance was usually lifted directly from the Academy session transcripts as a typical example of learner variety variation. The other utterance was created as a complementary utterance that conveyed the same or similar meaning using slightly different morphology or morphosyntax. (186) - (188) show some typical examples of GJT utterance pairs and how they both can have the same translation.

(186) (a) *sabanna ki'yo*. (b) *iksabanno*. 'I don't want it.'

(187) (a) *chibanna*? (b) *chibannataa*? 'Do you want it/some?'

(188) (a) *chipota oshta' amáyya'sha*. (b) *chipota amoshta*. 'I have four kids.'

In (186), the pair focuses on the two different ways of creating a negative utterance in Chickasaw. (186a) uses the negative auxiliary *ki'yo* and (186b) uses the complex affixation form of negation. In (187), (187a) creates a question using rising intonation while (187b) uses the interrogative suffix *-taa*. In (188), (188a) uses the reanalyzed positional verb in the 'have' construction while (188b) uses a reanalyzed Possessor Raised form of a numeral verb in the 'have' construction. Other GJT pairs had slight differences in their translation, as in (189) and (190).

(189) (a) *katahaat imambi*? (b) *kata imambi*?
'Who beat him?' 'Who did he beat?'

(190) (a) *minko'at tikahbi*. (b) *minko' tikahbi*.
'The chief is tired.' 'The chief is tired.' / 'A tired chief.'[28]

These GJT pairs are focused on the difference between using nominative case and omitting nominative case. Nominative case is described as obligatory in Chickasaw, but learners frequently omit case marking with no reaction from speakers and speakers themselves also omit the nominative case. In the GJT pairs focused on the presence or absence of nominative case *-at*, speakers generally preferred forms with nominative case but usually found both forms acceptable. Multiple pairs in the GJTs often featured the same single variation, for example one utterance would use the nominative case suffix and the other would not, with multiple pairs focused on this particular variation across the three GJTs.

Speakers had varied reactions to the GJTs, ranging from one speaker who quickly found every pair to be the same, to another speaker who slowly considered each utterance to identify and discuss every difference. After each pair of utterances, speakers were asked if the pairs had the same meaning or not, and if their meanings were different, how were they different. Speakers were then asked, regardless of whether they felt the forms had different meanings, which form they themselves would say. This last question often prompted speakers to consider which utterance they would say more frequently and which utterance they thought sounded "better," with these two judgments often but not always overlapping. Some speakers often found nearly all GJT pairs to have the same or "similar enough" translation with no real differences and that

[28] This second translation would require the verb *tikahbi* to be nominalized, as in *tikahbi'*. Some of the speakers consistently interpreted these kind of uncase marked utterances as noun phrases.

they themselves would use both forms, depending on the context. Most speakers were unsure how exactly to articulate what the differences in context would be, but expressed that the specific context affected which form they themselves would say. In only a few of the GJT pairs did speakers find that one or both utterances were unacceptable to say. Thus speaker judgments on a particular utterance usually ranged from "I would say that," to "I wouldn't personally say that one, I like this other one better, but it's still ok," to "that one doesn't sound right." Only a few of the GJT pairs in particular evoked strong preferences for one over the other and some trends were identified in this data focusing on negation, question formation, 'have' constructions, and the use of *-akookya*.

In the GJT pairs focused on negation, all of the speakers judged both periphrastic negation and complex negation forms as acceptable, as having the same or very similar meaning, and that they themselves would use both forms. A few of the speakers indicated that they preferred one form of negation over the other, and all of these speakers chose the complex negation as the preferred negation and the one that they themselves would say most frequently. Speaker impressions of frequency were found to be true in the Academy session data; speakers more frequently used the complex negation over the periphrastic negation.

In the GJT pairs focused on question formation, all of the speakers judged both rising intonation and the use of a question word or suffix, like *-taa*, to be acceptable and to have the same or very similar meaning. When asked which form they would use, speakers differed in their preferences. Some speakers preferred the rising intonation form over the interrogative suffix form, often stating that the use of the suffix was unnecessary. Other speakers preferred the suffixed form, judging those forms to be

"more proper." However, all speakers noted that they thought they used the rising intonation forms more often, which was also found to be true in the data. In the Academy session data, the speakers much more frequently used rising intonation with no interrogative suffix or question word to form a question.

In the GJT pairs focused on 'have' constructions, speakers had the most divergent opinions. These pairs focused on the differences between using a reanalyzed Possessor Raised positional verb to create a 'have' construction, as in (191a) below which most speakers use, and using a reanalyzed Possessor Raised numeral verb to create a 'have' construction, as in (191b) below which not all speakers use but learners frequently use.

(191)(a) *chipota oshta' amáyya'sha*. (b) *chipota amoshta*. 'I have four kids.'

Some speakers found both forms equally acceptable, but other speakers preferred one over the other. Speakers that preferred the use of the reanalyzed positional verb, as in (191a), judged the use of the reanalyzed numeral verb in (191b) as unacceptable. Speakers who preferred the use of the reanalyzed numeral verb found the reanalyzed positional verb to be also acceptable. Included in this GJT was another pair of utterances, one using the original Possessor Raised construction with the positional verb, as in (192a) below, and the other using the reanalyzed numeral verb, as in (192b).

(192) (a) *Ricat chipotaat imáyya'sha*. (b) *Ricat chipota imoshta*. 'Ric has four kids.'

The same speakers who found the reanalyzed numeral verbs to be unacceptable in other pairs, still found (192b) to be unacceptable in this pairing, but judged the Possessor Raised form in (192a) as acceptable in this pair. Some speakers found all 'have' constructions - Possessor Raised forms as in (192a), reanalyzed positional verbs

as in (191a), and reanalyzed numeral verbs as in (191b) and (192b) - as acceptable. The speakers expressed that they enjoyed the GJTs and the CLRP also expressed interest in continuing to gather these kinds of judgments in their future work.

The suffix -akookya is described (Munro and Willmond 1994, 2008) as only appearing on nouns and has the meaning of 'too' or 'also,' as in (192a). The learners have extended this suffix to also be used on verbs, as in (193b).

(193)(a) *ana'akookya amalhkaniya*. (b) *amalhkaniyakookya*. 'I also forgot.'

All of the speakers preferred *-akookya* on either a noun or pronoun, as in (193a), and felt that they would not say a form like in (193b). But this is not a variation that the speakers ever overtly correct in the learner variety during the Academy sessions.

5.4 Conclusions

General similarities are often found across language learners' developmental sequences, regardless of their age or language background. In other words, learner grammars of the same target language are often similar in the order of acquisition, even if the learners have different L1s, and the order for adult learners is somewhat similar to a child acquiring the same target language. Learner language sequences are not identical across leaners, because different L1s and types of instruction do impact the sequence and order of acquisition, but the sequences have often been found to be similar (Myles 2013, Dulay and Burt 1974). Understanding the development of the learner language helps improve language teaching, while knowing the order of acquisition helps set reasonable expectations for learners and instructors (Lightbrown and Spada 2006). At the time of writing, there are no studies of order of acquisition for Chickasaw, any other Muskogean languages, or even any other Southeastern languages.

The learners in the Chikasha Academy follow logical and identifiable orders of acquisition for each grammatical feature that they learn. I hope that the descriptions of the sequences in this section will aid the Chikasha Academy in improving curriculum development and that they might aid other endangered language programs focused on adult immersion. All of the research that has gone into this dissertation has been and will continue to be shared with the CLRP. The sequences described in this section are admittedly specific to a small group of learners in a specific environment, and how similarly these orders of acquisition occur for other learners of Chickasaw in other contexts will remain to be seen with further research.

The exemplary texts of the learner varieties show the progression of the learners as they acquire Chickasaw, in addition to their creative skills at expressing themselves at each proficiency sublevel. As they continue in the Academy, the learners progress through the orders of acquisition and acquire Chickasaw grammar. Their learner varieties expectedly show a large amount of variation. But, most of the variation described in the learner varieties also occurs in the varieties spoken by the speakers, though often to a lesser degree. For example, speakers occasionally omit nominative case marking, but to a much less frequent degree than learners, especially novice learners who nearly always omit case marking. However as shown in the example of the intermediate varieties, with continued involved in the Academy, the learners can and do acquire grammatical features, such as case marking, and use them productively and frequently.

During the Academy sessions, the speakers rarely react to variations created by the learners, for example the speakers rarely overtly correct the learners. Usually the

speakers only correct the learners when they cannot understand what they are trying to say, for example when a mispronunciation results in a nonsensical utterance or when the use of a different pronominal affix results in an entirely different meaning than the one intended. The results of the grammaticality judgment tasks showed that speakers were aware of variations and sometimes had preferences between forms, but rarely did they find the variation to be unacceptable. Despite their variations, the speakers importantly generally accept the way the learners speak. The goal of the Chikasha Academy is for learners to be communicable with speakers, for their way of speaking to be accepted and understood, even if their way of speaking has some amount of change. In describing the development of the learner varieties of Chickasaw, this chapter has focused on the successes of the learners in the Academy as they learn their language.

Chapter Six: Conclusions

6.1 Summary

The first chapter provided an introduction to the processes of language shift and revitalization and to the histories of these processes in Chickasaw Nation. The second chapter presented a succinct sketch of the Chickasaw language, with a focus on morphology and morphosyntax, and a further focus on the features that figured heavily in the discussion of the data in Chapter 5. One important inclusion in this sketch of Chickasaw is the variation in the speech of the Chikasha Academy speakers, which is part of the input of the Academy learners. Chapter 3 positioned the research in relation to the studies of language acquisition, change, and revitalization. In particular, I considered how language acquisition is affected by language shift, how language change is caused by language acquisition, and how the conscious efforts of language revitalization can further impact language acquisition and cause new types of change in the language. The study of endangered language varieties affected by language revitalization is likely emerging through a new framework, or at least an emerging consensus of how to adjust existing frameworks of study. Chapter 4 described how the data was transcribed, analyzed, and coded in order to track input, order of acquisition, and developmental stages of the learner varieties, in particular discussing the choice of software (SayMore and FLEx). Chapter 5 then presented the analysis of the data. The first section analyzed orders of acquisition, focusing on the following morphological and morphosyntactic features in Chickasaw: agreement, word order, case, negation, tense, questions, and switch-reference. The second section analyzed a representative

text of the novice low, mid, and high and intermediate low proficiency levels. The third section discussed the data from the grammaticality judgement tasks.

This dissertation has analyzed how the adult learners in the Chikasha Academy are learning their language, specifically focusing on the order of acquisition of certain morphological and morphosyntactic features and describing the early learner varieties of Chickasaw. Expectedly, when compared to both published descriptions of Chickasaw, which are based on speakers, and the speech of the specific speakers involved in the Chikasha Academy program, the adult learners' morphological and morphosyntactic structures have noticeable differences. However, as they progress in proficiency, many of these differences disappear from their learner variety. While language acquisition, of any type, inevitably causes some language change, the agency of the learners, speakers, and revitalization programs cannot be ignored. The Chikasha Academy reestablishes the crucial intergenerational relationships necessary for passing on the language, and the learner varieties that have developed are part of the continuous chain of intergenerational relationships that have maintained the language and its community. What they learn successfully, and the context in which they are learning, far outweighs any differences between their learner varieties and other varieties of Chickasaw.

The primary goal of this dissertation is to analyze the learner varieties and provide useful information to the CLRP that may help to improve the design of the Chikasha Academy. A secondary goal has been to further the descriptive literature of Chickasaw, by describing the learner varieties, which are new, emerging, contact-induced varieties of Chickasaw.

6.2 Future Directions

Given the novel nature of this research, I do not think it is an exaggeration to say that the future possibilities of this research, particularly with this particular data set, are quite large. The worldwide movement of indigenous language advocacy, which includes language revitalization, revival, reclamation, and maintenance programs, began in the 1990s (Leonard 2007). This has caused an accompanying international increase in the number of language learning programs focused on indigenous languages (Leonard 2007). In Native North America, most indigenous languages are no longer spoken by children. Thus, a large and increasing number of language revitalization programs in Native North America are focused on adult learners and many are turning to immersion methods like the Master-Apprentice program or similar group programs like the Chikasha Academy. Hopefully the results of this research can be useful not only to Chickasaw Nation's adult immersion program, but also to other communities using similar methods. One possible future project with this research will be to create Chickasaw-specific proficiency standards that could be used by the CLRP to conduct assessments and aid in curriculum design.

Along with the indigenous language advocacy movement, there has also been an increase in work on language learning, teaching, acquisition, and curriculum development of materials for endangered languages in the context of language revitalization (Leonard 2007). This growing amount of research seems to be in search of a new paradigm, or at least a consensus of how to shift current paradigms in order to study this unique context of acquisition and better support the unique needs of indigenous language learners and teachers (Chew 2016, Hirata-Edds and Peter 2016).

Part of this dissertation research has been a consideration of how to adapt current research paradigms in language change and acquisition in order to study adult language acquisition in the context of language revitalization.

The corpus of learner variety data created through this dissertation work invites a nearly endless amount of analysis. One obvious future direction for this research is to cross-linguistic analysis, comparing the orders of acquisition found in Chickasaw with languages that have similar morphological and/or morphosyntactic features. This dissertation focused on only a specific set of morphological and morphosyntactic features, but any linguistic feature could be studied using this corpus. In discussions with the CLRP, a future direction for further analysis will likely focus on tense, modality, and aspect verbal morphology. Chickasaw speakers, and consequently the learners, in the Academy use many affixes and combinations of affixes that are underdescribed or not described in the literature and are in need of further study to be understood both in their usage amongst current speakers and acquisition by learners.

The speech of the speakers involved in the Academy has many noticeable differences from how Chickasaw is described in the literature (e.g. Munro and Willmond 2008). One small part of the second chapter of this dissertation described some of this variation. But further descriptive work on the variety of Chickasaw in use by the speakers involved in the Chikasha Academy would be valuable not only to broaden the documentation and description of Chickasaw, but also to aid the learners in the Academy.

The grammaticality judgment tasks (GJTs) were a relatively small component of this dissertation research but have become of increasing interest to the CLRP. Thus I

have definite future plans to conduct more GJTs with speakers in order to further explore their judgments of many other variable uses of morphology and morphosyntax that have been observed in the learner varieties. The CLRP is also interested in conducting GJTs that examine speaker perceptions of variations not specific to learners, that is variation that occurs amongst speakers, in addition to administering the GJTs to the learners in the Academy to gauge their perceptions of variations.

In this dissertation research, I limited my study to only the first year of the Academy, from the fall of 2015 to the fall of 2016. But the Academy is ongoing and the CLRP has continued to record every session and assessment. Thus, the new Chickasaw learner variety data needs to be transcribed, coded, and added to the existing corpus of data.

6.3 Conclusions

Language variation is often representative of language change, both traces of past change and seeds for potential future change. Most of the variations described in the speech of the learners have some sort of source in the way that the speakers of the Academy speak Chickasaw. Usually, the learner variety uses a specific feature or form in much higher frequency than a speaker would. For example, learners use periphrastic negation using the negative auxiliary verb *ki'yo* at much higher frequencies than speakers, especially novice learners. However, as the learners progress in their acquisition of negative forms, their use of the complex affixation negative increases in frequency. Their continued involvement in the Chikasha Academy provides them the needed exposure to continue their acquisition of the language, but also keeps them involved in this specific Chickasaw speech community. The efforts of language

revitalization re-establish spaces for their language alongside the dominant language, (re)creating a multicompetent and multilingual Chickasaw speech community. The norms of this community in terms of language use are negotiated during every Academy session.

> *Hannah-at 'ishtkolli'' aachikma̲, poshno' 'ishtkolli'' ilaachihookya 'lokfishpiha'' aachikya. Nanna hooaachikma̲, ilaachiakookya.*
>
> If Hannah says 'ishtkolli'', then we say 'ishtkolli',' but they also say 'lokfishpiha'.' What they say, we say, too. (JOH 2016/02/24)

As the learners acquire Chickasaw, they are actively involved in negotiating the new norms of use of Chickasaw in the context of language revitalization and this negotiation will likely result in some changes.

Languages change in order to conform to the needs of their communities. The Chickasaw youth of today are growing up in a very different language ecology than their elders, as described in the first chapter of this dissertation. Their way of speaking Chickasaw will in many ways reflect the ecological differences that have occurred over the last eighty years. The variety/ies spoken by the speakers in the Academy are likely different than what their parents and grandparents spoke, and many of the variations described in the second chapter are likely due to such change. But all language acquisition, all intergenerational transmission, results in some sort of language change.

One of the primary goals of this dissertation is to begin the descriptive work on the emerging new varieties of Chickasaw through the Chikasha Academy. A new direction of research in documentary and descriptive linguistics is to study these new voices (Grenoble 2013, Mithun 2013, Woodbury 2005). Languages have always changed and all languages change, but every language has their own story of how and

why they change. When a language changes, every part of the language may be affected. Speakers may change where they speak the language and who they speak it with; they may change how they think and feel about their language; they may change what language they speak altogether; or they may change some parts of the actual language itself. When languages come into contact, many kinds of change can and often do occur. Similarly, when language acquisition occurs, language change will also occur. No form of language acquisition passes on an exact copy of the language, because people are creative and unpredictable beings. But, one amazing aspect of language is its testament to human genius, demonstrating remarkable adaptability and creativity. Endangered languages around the world have had speakers fall silent, due to colonialization and oppression, but they are now actively writing new stories of language revitalization and renewal. These new voices will carry these new revitalized varieties of the language into the future.

References

ADLEY-SANTAMARIA, BERNADETTE. 1997. White Mountain Apache Language: Issues in Language Shift, Textbook Development, and Native Speaker-University Collaboration. *Teaching Indigenous Languages*, ed. by Jon Allan Reyhner, 129-143. Northern Arizona University, Center for Excellence in Education.

AIKHENVALD, ALEXANDRA Y. 2002. Language Obsolescence: Progress or Decay? The emergence of new grammatical categories in "language death." *Language Endangerment and Language Maintenance*, ed. by David Bradley and Maya Bradley, 144–154. New York: RoutledgeCurzon.

AIKHENVALD, ALEXANDRA Y. 2003. Mechanisms of change in areal diffusion: new morphology and language contact. *Journal of Linguistics* 39.1–29.

AIKHENVALD, ALEXANDRA Y. 2006a. Grammars in Contact: A Cross-Linguistic Perspective. *Grammars in contact: a cross-linguistic typology*, ed. by Alexandra Y. Aikhenvald and Robert M. W. Dixon, 1–66. New York: Oxford University Press.

AIKHENVALD, ALEXANDRA Y. 2006b. Reflections on language contact, areal diffusion, and mechanisms of linguistic change. *Sprachbund in the West African Sahel*, ed. by Bernard Caron and Petr Zima, 23–36. Peeters: Louvain-Paris.

AIKHENVALD, ALEXANDRA Y.; and ROBERT M. W. DIXON. 2006. *Grammars in contact: a cross-linguistic typology*. New York: Oxford University Press.

AITCHISON, JEAN. 2013. *Language change: progress or decay?* New York: Cambridge University Press.

ALBERSON, YVONNE; GREGG HOWARD; JERRY IMOTICHEY; and CARLIN THOMPSON. 1995. *Introduction to Chickasaw*. Fayetteville, AR.: VIP Pub. Co.

ALTMAN, HEIDI M. 2011. History, Language, and Globalization in the North Carolina Cherokee Communities. *Ethnographic Contributions to the Study of Endangered Languages*, ed. by Tania Granadillo and Heidi A. Orcutt-Gachiri, 177–188. University of Arizona Press.

ANSALDO, UMBERTO; and LISA LIM. 2015. *Languages in Contact*. Cambridge: Cambridge University Press.

ASHER, JAMES J. 2012. *Learning Another Language Through Actions*. Sky Oaks Productions.

BALDWIN, DARYL; KAREN BALDWIN; JESSIE BALDWIN; and JARRID BALDWIN. 2013. miaamiaataweenki oowaaha: "Miami Spoken Here." *Bringing Our Languages*

Home: Language Revitalization for Families, ed. by Leanne Hinton, 3-18. Berkeley, California: Heyday.

BASHAM, CHARLOTTE.; and ANN FATHMAN. 2008. The Latent Speaker: Attaining Adult Fluency in an Endangered Language. *International Journal of Bilingual Education and Bilingualism* 11.577–597.

BEREZ, ANDREA. 2007. Review of EUDICO Language Annotator (ELAN). *Language Documentation & Conservation* 1.283–289.

BERLIN, LAWRENCE N. 2006. Indigenous Language Education and Second Language Acquisition (SLAT): Are They Compatible? *One voice, many voices : recreating indigenous language communities*, ed. by Teresa L. McCarty, Ofelia Zepeda, and V. H .Begay, 251-274. Tempe, AZ: Arizona State University Center for Indian Education.

BOOKER, KAREN M. 1980. Comparative Muskogean: Aspects Of Proto-Muskogean Verb Morphology. Lawrence, KS: University of Kansas. Ph.D.

BOURDIEU, PIERRE. 1977. *Outline of a theory of practice*. Cambridge: Cambridge University Press.

BROADWELL, GEORGE AARON. 2006. *A Choctaw Reference Grammar*. University of Nebraska Press.

BROWN, CECIL H. 1998. Spanish Loanwords in Languages of the Southeastern United States. *International Journal of American Linguistics* 64.148–167.

CAMPBELL, LYLE; and MARTHA C. MUNTZEL. 1989. The structural consequences of language death. *Investigating obsolescence: Studies in language contraction and death*, ed. by Nancy C. Dorian, 181–196. Cambridge: Cambridge University Press.

CARREIRA, MARIA. 2004. A Dual Approach to Understanding the Term "Heritage Language Learner." *Heritage Language Journal* 2.1–25.

CHEW, KARI A. B. 2015. Family at the Heart of Chickasaw Language Reclamation. *American Indian Quarterly* 39.154–179.

CHEW, KARI A. B. 2016. Chikashshanompa' Ilanompohóli Bíyyi'ka'chi [we will always speak the Chickasaw language]: Co IRAL - International Review of Applied Linguistics in Language Teaching nsidering the vitality and efficacy of Chickasaw language reclamation. Tucson, AZ: The University of Arizona. Ph.D.

CHICKASAW LANGUAGE COMMITTEE; JOSHUA D. HINSON; JOHN P. DYSON; and PAMELA MUNRO. 2012. *Anompilbashsha' Asilhha' Holisso : Chickasaw prayer book*. Ada, OK: Chickasaw Press.

COBB, AMANDA J. 2000. *Listening to our grandmothers' stories: the Bloomfield Academy for Chickasaw Females, 1852-1949*. Lincoln: University of Nebraska Press.

COOK, EUNG-DO. 1995. Is There Convergence in Language Death? Evidence from Chipewyan and Stoney. *Journal of Linguistic Anthropology* 5.217–231.

CORDER, STEPHEN. 1967. The significance of learner's errors. IRAL - International Review of Applied Linguistics in Language Teaching 5.4.161-170
.

CRYSTAL, DAVID. 2000. *Language death*. New York, NY: Cambridge University Press.

DAVIS, JENNIFER LYNN. 2013. Learning to "talk Indian": Ethnolinguistic identity and language revitalization in the Chickasaw renaissance. Boulder, CO: University of Colorado. Ph.D.

DEACON, ZERMARIE; JOY PENDLEY; WAYMON R. HINSON; AND JOSHUA D. HINSON. 2011. Chokka-Chaffa' Kilimpi', Chikashshiyaakni' Kilimpi': Strong Family, Strong Nation. *American Indian & Alaska Native Mental Health Research: The Journal of the National Center* 18.41–63.

DE REUSE, WILLEM. 1997. Teaching Western Apache. *Teaching Indigenous Languages*, ed. by Jon Allan Reyhner, 1–14. Northern Arizona University, Center for Excellence in Education.

DOLIVE, HENRY. 2013. Rule change helps schools teach tribal languages. *NewsOK.com*. Online: http://newsok.com/article/3917751.

DORIAN, NANCY C.. 1981. *Language death: the life cycle of a Scottish Gaelic dialect*. Philadelphia: University of Pennsylvania Press.

DORIAN, NANCY C. 1989. *Investigating obsolescence: studies in language contraction and death*. New York: Cambridge University Press.

DORIAN, NANCY C. 1994. Purism vs. Compromise in Language Revitalization and Language Revival. *Language in Society* 23.479–494.

DULAY, HEIDI C., and MARINA K. BURT. 1974. Natural sequences in child second language acquisition. *Language Learning* 24.37-53.

EVANS, NICHOLAS. 2001. The last speaker is dead -Long live the last speaker! *Linguistic fieldwork*, ed. by Paul Newman and Martha Ratliff, 250–281. New York: Cambridge University Press.

FIELD, MARGARET C. 2009. Changing Navajo Language Ideologies and Changing Language Use. *Native American Language Ideologies: Beliefs, Practices, and Struggles in Indian Country*, ed. by Margaret C Field and Paul V Kroskrity, 31–47. Tucson, AZ: The University of Arizona Press.

FISHMAN, JOSHUA A. 1991. *Reversing language shift: theoretical and empirical foundations of assistance to threatened languages*. Philadelphia: Multilingual Matters.

FISHMAN, JOSHUA A. 2001. *Can Threatened Languages be Saved?: Reversing Language Shift, Revisited : a 21st Century Perspective*. Bristol, PA: Multilingual Matters.

FITZGERALD, COLLEEN M. 2016. Morphology in the Muskogean languages. *Language and Linguistics Compass* 10.681–700.

FITZGERALD, COLLEEN M. and JOSHUA D. HINSON. 2013. "Ilittibaatoksali" "We are working together": Perspectives on Our Chickasaw Tribal-Academic Collaboration. *FEL XVII: Endangered Languages Beyond Boundaries: Community Connections, Collaborative Approaches, and Cross-Disciplinary The development of "new" languages in Native American communities. , 27(2), 41-59. Research*. 53–60.

GATSCHET, ALBERT S. 1884. *Chickasa: lexical and syntactic collection obtained from Judson Dwight Collins*. Smithsonian Insitution. Bureau of American Ethnology.

GIBSON, ARRELL M. 1971. Chickasaw Ethnography: An Ethnohistorical Reconstruction. *Ethnohistory* 18.99–118.

GOLLA, VICTOR. 2007. North America. *Encyclopedia of the world's endangered languages*, ed. by Christopher Moseley, 1–96. New York: Routledge.

GOODFELLOW, ANNE. 2002. The development of "new" languages in Native American communities. *American Indian Culture and Research Journal* 27.41-59.

GORDON, MATTHEW K. 1996. The intonational structure of Chickasaw. *The Journal of the Acoustical Society of America* 100.2825–2825.

GORDON, MATTHEW; PAMELA MUNRO; and PETER LADEFOGED. 2000. Some Phonetic Structures of Chickasaw. *Anthropological Linguistics* 42.366–400.

GORDON, MATTHEW; PAMELA MUNRO; and PETER LADEFOGED. 2001. Chickasaw. *Journal of the International Phonetic Association* 31.287–290.

GORDON, MATTHEW; and PAMELA MUNRO. 2007. A Phonetic Study of Final Vowel Lengthening in Chickasaw. *International Journal Of American Linguistics* 73.293–330.

GREEN, RICHARD. 2007. *Chickasaw Lives, vol. 1: Explorations in Tribal History*. Ada, OK.: Chickasaw Press.

GRENOBLE, LENORE A. 2011. Language ecology and endangerment. *The Cambridge Handbook of Endangered Langauges*, ed. by Peter K. Austin and Julia Sallabank, 27–44. New York: Cambridge University Press.

GRENOBLE, LENORE A. 2013. Unanswered questions in language documentation and revitalization: New directions for research and action. *Responses to Language Endangerment: In honor of Mickey Noonan*, ed. by Elena Mihas, Bernard Perley, Gabriel Rei-Doval, and Kathleen Wheatley, 43–57. Philadelphia: John Benjamins Publishing Company

GRINEVALD, COLETTE. 2003. Speakers and Documentation of Endangered Languages. *Language Documentation and Description* 1.52–72.

GRINEVALD, COLETTE; and MICHEL BERT. 2011. Speakers and communities. *The Cambridge handbook of endangered languages*, ed. by Peter K. Austin and Julia Sallabank, 45–65. Cambridge University Press.

HAAS, MARY. 1941. Noun Incorporation in the Muskogean Languages. *Language* 17.311–315.

HAN, ZHAOHONG; and ELAINE TARONE. (eds.) 2014. Interlanguage: Fort years later. Philadelphia: John Benjamins Publishing Company.

HAYNES, ERIN FLYNN. 2010. Phonetic and Phonological Acquisition in Endangered Languages Learned by Adults: A Case Study of Numu (Oregon Northern Paiute). Berkeley: University of California. Ph.D.

HENDRIKS, HENRIETTE. 2005. The "Structure of Learner Varieties": Introduction to the volume. *The Structure of Learner Varieties*, ed. by Henriette Hendriks, 1–17. New York: De Gruyter.

HICKEY, RAYMOND. 2010. *The handbook of language contact*. Malden, MA: Wiley-Blackwell.

HILL, JANE H. 2002. "Expert Rhetorics" in Advocacy for Endangered Languages: Who Is Listening, and What Do They Hear? *Journal of Linguistic Anthropology* 12.119–133.

HIMMELMANN, NIKOLAUS P. 2006. Language documentation: What is it and what is it good for? *Essentials of language documentation*, ed. by Jost Gippert, Nikolaus Himmelmann, and Ulrike Mosel, 1-30. New York: Mouton de Gruyter.

HIMMELMANN, NIKOLAUS P. 2012. Linguistic Data Types and the Interface between Language Documentation and Description 6.187-207.

HINSON, JOSHUA D. 2017. Nannanoli' ilimaaithana (We're learning from stories): Transforming narrative documentation into adult immersion curriculum. Paper

presented at the 5th International Conference on Language Documentation and Conversation. Honolulu, HI.

HINSON, JOSHUA D.; and JOANN ELLIS. 2008. Master Apprenticeship Program at the Chickasaw Nation. *NIEA News*, 22.

HINTON, LEANNE. 1997. Survival of endangered langauges: The California Master-Apprentice Program. *International Journal of the Sociology of Language* 123.177–191.

HINTON, LEANNE. 1999. Teaching endangered languages. *Concise encyclopedia of educational linguistics*, ed. by Bernard Spolsky. Oxford: Elsevier Science.

HINTON, LEANNE. 2001a. Language Revitalization: An Overview. *The Green Book of Language Revitalization in Practice*, ed. by Leanne Hinton and Ken Hale, 3–18. San Diego, CA: Academic Press.

HINTON, LEANNE. 2001b. The Master-Apprentice Language Learning Program. *The Green Book of Language Revitalization in Practice*, ed. by Leanne Hinton and Ken Hale, 217–226. San Diego, CA: Academic Press.

HINTON, LEANNE. 2001c. Sleeping Languages: Can They Be Awakened? *The Green Book of Language Revitalization in Practice*, ed. by Leanne Hinton and Ken Hale, 413–418. San Diego, CA: Academic Press.

HINTON, LEANNE. 2003. How to Teach When the Teacher Isn't Fluent. *Nurturing Native Languages*, ed. by Jon Reyhner, O. Trujillo, R. L. Carrasco, and L. Lockard, 79-92. Flagstaff, AZ: Northern Arizona University.

HINTON, LEANNE. 2008. Learning and Teaching Endangered Indigenous Languages. *Volume 4: Second and Foreign Language Education*, ed. by Nelleke van Deusen-Scholl and Nancy H Hornberger, 4:157–167. New York, NY: Springer.

HINTON, LEANNE. 2011. Language Revitalization and Language Pedagogy: new teaching and learning strategies. *Language and Education* 25.307–318.

HINTON, LEANNE; and JOCELYN AHLERS. 1999. The Issues of "Authenticity" in California Language Restoration. *Anthropology and Education Quarterly* 30.56–67.

HINTON, LEANNE; and KEN HALE. 2001. *The Green Book of Language Revitalization in Practice*. San Diego, CA: Academic Press.

HINTON, LEANNE; MATT VERA; and NANCY STEELE. 2002. *How to Keep Your Language Alive: A commonsense approach to one-on-one language learning*. Berkeley, CA: Heyday Books.

HIRATA-EDDS, TRACY; and LIZETTE PETER. 2016. Multi-competence and endangered language revitalization. *The Cambridge handbook of linguistic multi-competence*, ed. by Vivian Cook and Li Wei, 321-337. Cambridge University Press.

HOLTON, GARY. 2009. Relearning Athabascan Languages in Alaska: Creating Sustainable Language Communities through Creolization. *Speaking of Endangered Languages: Issues in Revitalization*, ed. by Anne Goodfellow, 238–265. Cambridge Scholars Publishing.

HORNBERGER, NANCY H.; AND SHUHAN C WANG. 2008. Who Are Our Heritage Language Learners?: Identity and Biliteracy in the United States. *Heritage Language Education: A New Field Emerging*, ed. by Donna M Brinton, Olga Kagan, and Susan Bauckus, 3–38. New York, NY: Routledge.

HORNSBY, MICHAEL; and GILLES QUENTEL. 2013. Contested varieties and competing authenticities: neologisms in revitalized Breton. *International Journal of the Sociology of Language* 2013.71–86.

HUMES, JESSE; and VINNIE MAY (JAMES) HUMES. 1973. *A Chickasaw Dictionary*. Norman, OK: The University of Oklahoma.

HUMES, JESSE; AND VINNIE MAY (JAMES) HUMES. 2015. *A Concise Chickasaw Dictionary*. (Ed.) Lokosh / Joshua D. Hinson. Ada, OK: Chickasaw Press.

HYMES, DELL. 1966. Two types of linguistic relativity. *Sociolinguistics: Proceedings of the UCLA Sociolinguistics Conference, 1964*, ed. by William Bright, 114–158. Mouton & Company.

IRVINE, JUDITH T.; and SUSAN GAL. 2000. Language ideology and linguistic differentiation. *Regimes of language: ideologies, polities, and identities*, ed. by Paul V. Kroskrity, 35–83. Santa Fe, New Mexico: School of American Research Press.

KAGAN, OLGA; and KATHLEEN DILLON. 2008. Issues in Heritage Language Learning in the United States. *Second and Foreign Language Education*, ed. by Nelleke van Deusen-Scholl and Nancy H Hornberger, 143–156. New York: Springer.

KAUFMAN, DAVID V. 2014. The Lower Mississippi Valley as a Language Area. Lawrence, KS: University of Kansas. Ph.D.

KERSWILL, PAUL. 2010. Contact and New Varieties. *The Handbook of Language Contact*, ed. by Raymond Hickey, 230–251. Malden, MA: Wiley-Blackwell.

KING, JEANETTE. 2009. Language is Life: The Worldview of Second Language Speakers of Māori. *Indigenous Language Revitalization: Encouragement, Guidance & Lessons Learned*, ed. by L Lockard, 97–108. Flagstaff, AZ: Northern Arizona University.

KRASHEN, STEPHEN D.; and TRACY D. TERRELL. 1983. *The natural approach: language acquisition in the classroom*. Pergamon Press.

KRAUSS, MICHAEL. 2007. Classification and Terminology for Degrees of Language Endangerment. *Language diversity endangered*, ed. by Matthias Brenzinger, 1–8. New York: Mouton de Gruyter.

KRAUTHAMER, BARBARA. 2006. In Their "Native Country": Freedpeople's Understandings of Culture and Citizenship in the Choctaw and Chickasaw Nations. *Crossing waters, crossing worlds: the African diaspora in Indian country*, ed. by Tiya Miles and Sharon Patricia Holland, 100–120. Durham, NC: Duke University Press.

LARSEN, MIKE; MARTHA LARSEN; AND JEANNIE BARBOUR. 2010. *Proud to be Chickasaw*. Ada, OK: Chickasaw Press.

LEE, JAMES F.; and BILL VANPATTEN. 1995. *Making Communicative Language Teaching Happen*. McGraw-Hill.

LEONARD, WESLEY. 2007. Miami language reclamation in the home: A case study. Berkeley, CA: University of California. Ph.D

LEWIS, KARI ANN. 2011. Pomanompa' kilanompolika chokma (It is good that we speak our language): motivations to revitalize Chikashshanompa' (Chickasaw language) across generations. Los Angeles: University of California. M.A.

LIGHTBOWN, PATSY; AND NINA MARGARET SPADA. 2006. *How languages are learned*. New York: Oxford University Press.

LINN, MARY S.; SHEILAH NICHOLAS; INÉE SLAUGHTER; and AKIRA YAMAMOTO. 2002. Awakening the languages, challenges of enduring language projects: field reports from 15 programs from Arizona, New Mexico and Oklahoma. *Indigenous Languages Across the Community*, ed. by Jon Reyhner, 105-126. Flagstaff, AZ: Center for Excellence in Education, Northern Arizona University.

LITTLEFIELD, DANIEL F. 1980. *The Chickasaw freedmen: a people without a country.* Westport, CN: Greenwood Press.

LYNCH, ANDREW. 2003. The Relationship between Second and Heritage Language Acquisition: Notes on Research and Theory Building. *Heritage Language Journal* 1.1–18.

MARTIN, JACK B. 1994. Implications of Plural Reduplication, Infixation, and Subtraction for Muskogean Subgrouping. *Anthropological Linguistics* 36.27–55.

MARTIN, JACK B. 2011. *A grammar of Creek (Muskogee)*. Bloomington, IN.: University of Nebraska Press.

MARTIN, JACK Southeastern Languages. Unpublished manuscript.

MARTIN, JACK; and PAMELA MUNRO. 2005. Proto-Muskogean Morphology. *Native Languages of the Southeastern United States*, ed. by Heather K. Hardy and Janine Scancarelli, 299–320. Lincoln, NE: University of Nebraska Press.

MCCARTY, TERESA L. 2008. Native American languages as heritage mother tongues. *Language, Culture, and Curriculum* 21.201–228.

MCCARTY, T. L.; and RACHEL SCHAFFER. 1993. Language and Literacy Development. *Teaching American Indian Students*, ed. by Jon Allan Reyhner, 115–131. University of Oklahoma Press.

MEISEL, JÜRGEN M.; MARTIN ELSIG; and ESTHER RINKE. 2013. *Language acquisition and change: a morphosyntactic perspective*. Edinburgh, Scotland: Edinburgh University Press.

MITHUN, MARIANNE. 1989. The Incipient Obsolescence of Polysynthesis: Cayuga in Ontario and Oklahoma. *Investigating obsolescence: studies in language contraction and death*, ed. by Nancy C. Dorian, 243–257. New York: Cambridge University Press.

MITHUN, MARIANNE. 1991. Active/agentive Case Marking and Its Motivations. *Language* 67.510–546.

MITHUN, MARIANNE. 1999. *The Languages of Native North America*. New York: Cambridge University Press.

MITHUN, MARIANNE. 2015. Morphological Complexity and Language Contact in Languages Indigenous to North America. *Linguistic Discovery* 13.37-59.

MORGAN, PHILLIP CARROLL. 2010. *Chickasaw renaissance.* Ada, OK.: Chickasaw Press.

MORRIS, TRACI L. 2016. An example of excellence: Chickasaw language revitalization through technology. *Indigenous people and mobile technologies*, ed. by Laurel Evelyn Dyson, Stephen Grant, and Max A. N. Hendriks, 293–304. New York: Routledge.

MUFWENE, SALIKOKO S. 2001. *The ecology of language evolution*. New York: Cambridge University Press.

MUFWENE, SALIKOKO S. 2004. Language Birth and Death. *Annual Review of Anthropology* 33.201–222

MUNRO, PAMELA. 1983. When "Same" is Not "Not Different." *Switch-Reference and Universal Grammar*, ed. by John Haiman and Pamela Munro, 2:223–244. Philadelphia: John Benjamins Publishing Company.

MUNRO, PAMELA. 1984. The Syntactic Status of Object Possessor Raising in Western Muskogean. Proceedings of the Tenth Annual Meeting of the Berkeley Linguistics Society. 634–649.

MUNRO, PAMELA. 1985. Chickasaw Accent and Verb Grades. *Studia linguistica, diachronica et synchronica: Werner Winter sexagenario anno MCMLXXXIII*, 581–591. Amsterdam: Mouton de Gruyter.

MUNRO, PAMELA. 1987. Some Morphological Differences between Chickasaw and Choctaw. *UCLA Occasional Papers in Linguistics* 6.119–133.

MUNRO, PAMELA. 1988. Diminutive Syntax. *In Honor of Mary Haas: From the Haas Festival Conference on Native American Linguistics*, ed. by William Shipley, 539–555. Berlin: Mouton de Gruyter.

MUNRO, PAMELA. 1993. The Muskogean II Prefixes and Their Significance for Classification. *International Journal Of American Linguistics* 59.374–404.

MUNRO, PAMELA. 1997. The Contribution of Mary R. Haas to the Study of Southeastern Languages. *Anthropological Linguistics* 39.578–584.

MUNRO, PAMELA. 1998. Chickasaw Expressive "Say" Constructions. *Studies in American Indian Languages: Description and Theory*, ed. by Leanne Hinton, 180–186. Berkely: University of California Press.

MUNRO, PAMELA. 1999. Chickasaw Subjecthood. *Typological Studies in Language* 39.251–292.

MUNRO, PAMELA. 2000. The Leaky Grammar of the Chickasaw Applicatives. *Chicago Linguistics Society 36: The Main Session*.285–310.

MUNRO, PAMELA. 2003. "but" without switch-reference. *Language in time and space: a festschrift for Werner Winter on the occasion of his 80th birthday*, ed. by Brigitte L. M. Bauer and Georges-Jean Pinault, 293-312. Berlin: De Gruyter Mouton.

MUNRO, PAMELA. 2005. Chickasaw. *Native Languages of the Southeastern United States*, ed. by Janine Scancarelli and Heather K. Hardy, 114–156. Lincoln, NB: University of Nebraska Press.

MUNRO, PAMELA. 2006a. Chickasaw Positional Verbs. Paper presented at the American Indian Studies Association Conference. Albuquerque, New Mexico.

MUNRO, PAMELA. 2006b. From parts of speech to the grammar. *Studies in Language* 30.307–349.

MUNRO, PAMELA. 2011. On the Avoidance of Abstract Nominalizations. *Rivista di Linguistica* 23.23–38.

MUNRO, PAMELA. 2016. Chickasaw switch-reference revisited. *Switch Reference 2.0*, ed. by Rik van Gijn and Jeremy Hammond, 377–424.

MUNRO, PAMELA; and LYNN GORDON. 1982. Syntactic Relations in Western Muskogean A Typological Perspective. *Language* 58.81–115.

MUNRO, PAMELA; and CHARLES H. ULRICH. 1984. Structure-preservation and Western Muskogean Rhythmic Lengthening. *Proceedings of the Third Annual West Coast Conference on Formal Linguistics*, ed. by Mark Cobler, 191-202. Stanford: Stanford Linguistics Association.

MUNRO, PAMELA; and CATHERINE WILLMOND. 1994. *Chickasaw: An Analytical Dictionary*. Norman, OK: University of Oklahoma Press.

MUNRO, PAMELA; and CATHERINE WILLMOND. 2008. *Let's Speak Chickasaw: Chikashshanompa' Kilanompoli'*. Norman, OK: University of Oklahoma Press.

MYLES, FLORENCE. 2013. Theoretical approaches. *The Cambridge Handbook of Second Language Acquisition*, ed. by Julia Herschensohn and Martha Young-Scholten, 46-70. New York, NY: Cambridge University Press.

NATHAN, DAVID; and MEILI FANG. 2013. Re-imagining documentary linguistics as a revitalization-driven practice. *Keeping Languages Alive: Documentation, Pedagogy and Revitalization*, ed. by Sarah Jones and Mari C Ogilvie, 42–55. New York: Cambridge University Press.

NETTLE, DANIEL; and SUZANNE ROMAINE. 2000. Where Have All the Languages Gone? *Vanishing Voices: The Extinction of the World's Languages*, ed. by Daniel Nettle and Suzanne Romaine, 1-26. Oxford University Press.

NICHOLSON, RANGI. 1990. Maori Total Immersion Courses for Adults in Aotearoa/New Zealand: A Personal Perspective. *Effective Language Education Practices and Native Language Survival*, ed. by J Reyhner, 107–120. Choctaw, OK: Native American Language Issues.

O'GRADY, WILLIAM. 2017. The Linguistics of Language Revitalization: Problems of Acquistion and Attrition. *The Oxford Handbook of Endangered Languages*, ed. by K. Rehg and Lyle Campbell, 1-17. Oxford University Press.

O'GRADY, WILLIAM; and RYOKO HATTORI. 2016. Language Acquisition and Language Revitalization. *Language Documentation & Conservation* 10.45–57.

OHMORI, KEIJI. 1979. The phonology and some aspects of the morphology of Chickasaw. Athens, Georgia: University of Georgia. M.A.

OLAWSKY, KNUT. 2013. The Master-Apprentice Language Learning Program Down Under: Experience and Adaptation in an Australian Context. *Language Documentation and Conservation* 7.41-63.

OLTHUIS, MARJA-LIISA; SUVI KIVELA; and TOVE SKUTNABB-KANGAS. 2013. *Revitalising Indigenous Languages: How to Recreate a Lost Generation*. Philadelphia: Multilingual Matters.

ORTEGA, LOURDES. 2009. *Understanding second language acquisition*. London: Hodder Education.

ORTEGA, LOURDES. 2013. SLA for the 21st Century: Disciplinary Progress, Transdisciplinary Relevance, and the Bi/multilingual Turn. *Language Learning* 63.1–24.

O'SHANNESSY, CARMEL. 2011. Language contact and change in endangered languages. *The Cambridge Handbook of Endangered Languages*, ed. by Peter K. Austin and Julia Sallabank, 78–99. New York: Cambridge University Press.

OZBOLT, IVAN. 2014. Community Perspectives, Language Ideologies, and Learner Motivation in Chickasaw Language Programs. Norman, OK: University of Oklahoma. Ph.D.

PALOSAARI, NAOMI; and LYLE CAMPBELL. 2011. Structural aspects of language endangerment. *The Cambridge Handbook of Endangered Langauges*, ed. by Peter K. Austin and Julia Sallabank, 100–119. New York: Cambridge University Press.

PARK, ELIZABETH A. 2011. The Lived Experiences of Participants in the Euchee/Yuchi Language Project: A Phenomenological Study of Language Preservation. Fayetteville, AR: University of Arkansas. Ph.D.

PAYNE, DORIS L. 1980. Switch-reference in Chickasaw. *Studies of switch-reference*, ed. by Pamela Munro, 89–118. 8. Los Angeles: Department of Linguistics, University of California, Los Angeles.

PAYNE, DORIS L. 1982. Chickasaw agreement morphology: a functional explanation. *Studies in Transitivity*, ed. by Paul Hopper and Sandra Thompson, 351-378. New York: Academic Press.

PERLEY, BERNARD C. 2012. Zombie linguistics: experts, endangered languages and the curse of undead voices. *Anthropological Forum* 22.133–149.

PERLEY, BERNARD C. 2013. "Emergent vitalities" as antidote to "Zombie linguistics": a rejoinder to Joshua Nash. *Anthropological Form* 23.114–119.

PERLEY, BERNARD. 2014. *Remembering ancestral voices: emergent vitalities and the future of indigenous languages*. Philadelphia: John Benjamins Publishing Company.

PETER, LIZETTE; TRACY HIRATA-EDDS; and BRADLEY MONTGOMERY-ANDERSON. 2008. Verb development by children in the Cherokee language immersion program,

with implications for teaching. *International Journal of Applied Linguistics* 18.166–187.

POLINSKY, MARIA; and OLGA KAGAN. 2007. Heritage Languages: In the "Wild" and in the Classroom. *Language and Linguistics Compass* 1.368–395.

PULTE, WILLIAM. 1975. The Position of Chickasaw in Western Muskogean. *Studies in southeastern Indian Languages*, ed. by James Crawford, 251–63. Athens: University of Georgie Press.

REYHNER, JON. 2003. *Nurturing Native Languages*. Online: http://www2.nau.edu/jar/NNL/.

ROMAINE, SUZANNE. 1989. Pidgins, creoles, immigrant, and dying languages. *Investigating obsolescence: studies in language contraction and death*, ed. by Nancy C. Dorian, 369–383. New York: Cambridge University Press.

ROMAINE, SUZANNE. 2010. Contact and Language Death. *The Handbook of Language Contact*, ed. by Raymond Hickey, 320–339. Malden, MA: Wiley-Blackwell.

SASSE, HANS-JURGEN. 1992. Language decay and contact-induced change: Similarities and differences. *Language Death: Factual and Theoretical Explorations with Special Reference to East Africa*, ed. by Matthias Brenzinger, 59–80. New York: Mouton de Gruyter.

SAVILLE-TROIKE, MURIEL. 2006. *Introducing Second Language Acquisition*. Cambridge University Press.

SCHMIDT, ANNETTE. 1985. *Young peoples Dyirbal : an example of language death from Australia*. Cambridge: Cambridge University Press.

SCOTT, JANE ELIZABETH. 1981. Comparative Constructions in Chickasaw. Los Angeles: University of California Los Angeles. M.A.

SELINKER, LARRY. 1972. Interlanguage. *International Review of Applied Linguistics* 10.209-231.

SHERKINA-LIEBER, MARINA. 2011. Comprehension of Labrador Inuttitut functional morphology by receptive bilinguals. Canada: University of Toronto. Ph.D.

SIMONS, GARY F.; and M. PAUL LEWIS. 2013. The world's languages in crisis: a 20-year update. *Responses to Language Endangerment: In honor of Mickey Noonan*, ed. by Elena Mihas, Bernard Perley, Gabriel Rei-Doval, and Kathleen Wheatley, 3–20. Philadelphia: John Benjamins Publishing Company.

TAFT, ALICE. 2017. I Gu.aa Yáx X'wán: Be of Good Courage. Paper presented at the 5th International Conference on Language Documentation and Conversation. Honolulu, HI.

THOMASON, SARAH. 2010. Contact explanations in linguistics. *The handbook of language contact*, ed. by Raymond Hickey, 31–47. Malden, MA.: Wiley-Blackwell.

VALDÉS, GUADALUPE. 2001. Heritage Language Students: Profiles and Possibilities. *Heritage Languages in America: Preserving a National Resource*, ed. by Joy Kreeft Peton, Donald A Ranard, and Scott McGinnis. McHenry, IL: Center for Applied Linguistics.

WALKER, CYNTHIA ANN. 2000. Chickasaw Conversation. Los Angeles: University of California. Ph.D.

WHITE, FRANK. 2006. Rethinking Native American language revitalization. *American Indian Quarterly* 30.91–109.

WHONG, MELINDA; and CLARE WRIGHT. 2013. Scope and research methodologies. *The Cambridge handbook of second language acquisition*, ed. by Julia Rogers Herschensohn and Martha Young-Scholten, 71–92. New York: Cambridge University Press.

WOLFRAM, WALT. 2002. Language death and dying. *The handbook of language variation and change,* ed. by J. K. Chambers, P. Trudgill, & N. Schilling-Estes, 764-787. Malden, MA: Blackwell.

WOODBURY, ANTHONY C. 2005. Ancestral languages and (imagined) creolization. *Language Documentation and Description* 3.252-262.

YAMADA, RACQUEL-MARÍA. 2007. Collaborative Linguistic Fieldwork : Practical Application of the Empowerment Model. *Language Documentation and Conservation* 1.257–282.

Appendix A: List of Glossing Abbreviations

1 = first person
2 = second person
3 = third person
ACC = accusative case
APPL = applicative
AUX = auxiliary verb
CAUS = causative
CLS = clausal
CMP = complementizer
CONTR = contrastive
CNJ = conjunction
DAT = dative
DEM = demonstrative
DIST = distal
DS = different subject
DU = dual
DUB = dubitative
FOC = focus
HORT = hortative
HYP = hypothetical
I = set I 'active' agreement
II = set II 'non-active' agreement
III = set III 'dative' agreement
INAN = inanimate
INC = incompletive
IND = indicative
INDF = indefinite
INF = inferential
INT = interrogative
INTS = intensifier
INST = instrumental
IRR = irrealis
LOC = locative
MOD = modal
N = set N 'negative' agreement
NEG = negative
NGR = N-grade
NOM = nominative case
NONHUM = nonhuman
NUM = numeral
OBL = oblique case
PL = plural
POT = potential
PRO = pronoun

PROX = proximal
PST = past tense
PTCP = participle
Q = question suffix
REAL = realis
RECP = reciprocal
REM = remote
SBJ = subject
SG = singular
SS = same subject
TPL = triplural
TOP = topic

Appendix B: List of Annotation Symbols

. - end of utterance
? - marks question (rising intonation and/or use of question marker)
! - marks exclamation (excited intonation and/or use of suffix)
* - variant, non-native-like form
, - slight/small pause
… - long pause
\\ - self-correction
:) - laughing
[] - overlaps
|| - repeating a form
{} - repeating a correct form, imitating the correct form
$$ - form was primed or is memorized phrase
~ - cut-off, speaker decides to restart for whatever reason (sometimes called a 'false start')
# - self-interruption
%% - not sure what is being said
> - utterance is interrupted
< - continuing from an interrupted utterance
++ - speaking slowly, often separating by morphemes
^ - recast or correct a learner's utterance
() - for incomplete or variant forms
&& - word or string is stressed
"" - English (code-switching)
' ' - quoting someone
:: - unintelligible in the recording
@- saying something to prime another learner (like providing them examples)

Appendix C: Ofi' Ishto'’s Assessments

Ofi' Ishto' / Jason Burwell First Assessment, 10/26/2015, conducted by Lokosh / Joshua D. Hinson.

JAB: $ amalhtaha.
am-alhtaha
1SG.III.DAT-be.ready
‘I'm ready.’

JOH: buh, chimalhtaha? :)
chim-alhtaha
2SG.III.DAT-be.ready
‘buh, you're ready? :)’

JAB, JOH: :)

JOH: pílla, chinchokmataa?
pílla chim-chokma-taa
just.so 2SG.III.DAT-be.well-Q
‘so, are you well?’

JAB: $ anchokmakiini.
am-chokma-kiini
1SG.III.DAT-be.well-INTS
‘I’m very well.’

JOH: chokma. um, nanta chiholhchifoat?
chokma nanta chi-holhchifo-at
good what 2SG.II-name-NOM
‘good. um, what’s your name?’

JAB: $ saholhchifoat Jason.
sa-holhchifo-at Jason
1SG.I-name-NOM
‘my name is Jason.’

JOH: chokma. katekta ishaamintitaa?
chokma katekta ish-aa-minti-taa
good where 2SG.I-LOC-come-Q
‘good. where are you from?’

JAB: uh... "I would say uh I live in Sulphur, right?"

JOH: i̲i. um... “Sulphur” ishántahookya katekta ishlataam?
i̲i Sulphur ish-ánta-hookya katekta ish-ala-taam
yeah Sulphur 2SG.I-live.SG.SBJ-but where 2SG.I-come.here-PST.Q
‘yeah. um... you live in Sulphur but where did you come here from?’

JAB: ...

JOH: chikitha'nohookma̲ pílla ‘akitha'no' ishaacha'ka.
chik-ithana-o-hookma̲ pílla ak-ithana-o ish-aachi-a'hi bíyyi'ka
2SG.N-know-NEG-if.DS just.so 1SG.N-know-NEG 2SG.I-say-MOD can
‘if you don't know then you can just say ‘I don’t know’.’

JAB: oh, $ akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘oh, I don’t know.’

JOH: ‘akitha'no,’ chokma.
ak-ithana-o chokma
1SG.N-know-NEG good
‘‘I don't know,’ good.’

JOH: um... hmm... chimaafammi chinkáttohmi?
chim-afammi chim-káttohmi
2SG.III.DAT-year 2SG.III.DAT-have.how.many.INT
‘um... hmm... how old are you?’

JAB: $ akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘I don't know.’

JOH: chokma. um... chinki'akoot nanta holhchifo?
chokma chim-ki'-akoot nanta holhchifo
good 2SG.III.DAT-father-SBJ.CONTR what name
‘good. um... what's your father's name?’

JAB: ‘|nanta chiholhchifo|’ "is your name, what’s your name"?

JOH: chinki', chinki', nanta holhchifo?
chim-ki' chim-ki' nanta holhchifo
2SG.III.DAT-father 2SG.III.DAT-father what name
‘your father, your father, what’s his name?’

JAB: |chinki'|...

JOH: ii.
‘yeah.’

JAB: |nanta|...

JOH: chinki'? um... chishki', chishki'at nanta hochifo?
chim-ki' chi-ishki' chi-ishki'-at nanta hochifo?
2SG.III.DAT-father 2SG.III.DAT-mother 2SG.III.DAT-mother-NOM what be.called
‘your father? um... your mom, what’s your mom called?’

JAB: ...

JOH: ki'yo?
‘no?’

JOH: hmm... katekta ishaatoksali?
katekta ish-aa-toksali
where 2SG.I-LOC-work
‘hmm... where do you work at?’

JAB: |katekta|...

JOH: ii.
‘yeah.’

JAB: |aatoksali|...

JOH: ii.
‘yeah.’

JAB: "where do you work"?

JOH: ii.
‘yeah.’

JAB: uh... Ada.

JOH: :)

JAB: :) uh... *satoksali *Ada. "would you say that?"
sa-toksali
1sg.ii-work

JOH: ki'yo sa̲.
ki'yo sa-yimmi
no 1SG.II-believe
‘I don’t think so.’

JOH: chokma, chokmakiini. um... pílla, nanta...
chokma chokma-kiini pílla nanta
good good-INTS just.so what
‘good, very good. um... so, what...’

JOH: kati̲shchi̲ ishaacha'ni? yappa.
kati̲shchi̲ ish-aachi-a'ni yappa
how,INT 2SG.I-say-POT PROX.DEM
‘how would you say it? this.’

JAB: uh... nita'.
‘uh... bear.’

JOH: i̲i, nita'.
‘yeah, bear.’

JOH: yappa?
‘this?’

JAB: oh, uh... "like a" issi' kosoma', "maybe".
‘oh uh... like a goat, maybe.’

JOH: i̲i.
‘yeah.’

JAB: uh... soba.
‘uh... horse.’

JOH: i̲i.
‘yeah.’

JAB: waaka'.
‘cow.’

JOH: i̲i.
‘yeah.’

JAB: "and" uh... akanka'.
‘and uh... chicken.’

JOH: ii, akanka'.
‘yeah, chicken.’

JAB: uh... akanka'... chipota?
‘uh... chicken... babies?’

JOH: ki'yo :) :). yappa?
‘no :) :). this?’

JAB: :) :) $ akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘I don’t know.’

JOH: akanka' nakni', |akanka' nakni'|.
chicken male
‘rooster, rooster.’

JAB: {akanka', akanka' nakni'}

JOH: ii.
‘yeah.’

JOH: hmm... oh, yappa.
‘hmm... oh, this.’

JAB: oh... uh...

JOH: chimalhkaniya?
chim-alhkaniya
2SG.III.DAT-forget
‘did you forget?’

JAB: $ akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘I don't know.’

JOH: yappa?
‘this?’

JAB: oh! "hold on" uh... fochosh.
‘oh! hold on uh... duck.’

JOH: ii, fochosh, yappo'no, fochosh-oshi', fochosh-oshi'.
‘yeah, duck, this one, duckling, duckling.’

JAB: fochosh...
‘duck...’

JOH: ^oshi'.

JAB: |*hoshi'.|

JOH: ^oshi'.

JAB: {oshi'}

JOH: akanka-oshi', fochosh-oshi', shokha ba' shokhoshi',
‘chick, duckling, pig or piglet.

JOH: waakoshi' iskanno'sikmą, iksanno'sikmą waakoshi'. hmm.... yappa?
waaka-oshi' iskanno'si-kmą iksanno'si-kmą waaka-oshi' yappa
cow-offspring be.small-IRR.DS be.small-IRR.DS cow-offspring PROX.DEM
‘calf if it's small, if it's small it’s a calf. hmm... this?’

JAB: paska.
‘bread.’

JOH: uh-huh.

JAB: uh… $ akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘uh… I don't know.’

JOH: yappa?
‘this?’

JAB: uh… $ akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘uh… I don't know.’

JAB: "bananas"... $ akitha'no.
‘bananas... I don't know.’

JOH: ok. hmm... yappa?
‘ok. hmm... this?’

JAB: nipi'.
‘meat.’

JOH: ii.
‘yeah.’

JAB: |nipi'|... "would it be" nipi' "with what the word for pig is"?

JOH: ‘shokha' nipi',’ píllat ‘shokha' nipi'’ ba' ‘nipi' hapayyima',’ ‘nipi' sipokni'’...
shokha' nipi' pílla-at shokha' nipi' ba' nipi' hapayyima-' nipi' sipokni-'
pig meat just.so-NOM pig meat or meat be.salty-NMZ meat be.old-NMZ
‘‘pork’, it's just ‘pork’ or ‘smoked meat,’ or ‘old meat’...’

JAB: |nipi' sipokni'|
‘old meat’

JOH: ii. *ishtishaashla'ka.
ii isht-ish-aachi-li-a'hi bíyyi'ka
yes INSTR-2SG.I-say-*1SG.I-MOD can
yeah. *you can say something about it.

JAB: "for bacon"?

JOH: mmhmm.

JAB: |nipi' sipokni'|
‘old meat’

JOH: ii.
‘yeah.’

JAB: hmm

JOH: nipi' hapayyima', yammakookya. ya~ yappat nanta?
nipi' hapayyima-' yamm-akookya yapp-at nanta
meat be.salty-NMZ DIST.DEM-also PROX.DEM-NOM what
‘that’s also ‘salt meat.’ what’s this?’

JAB: oh, shawi'.
‘oh, raccoon.’

JOH: ii, shawi'.
‘yeah, raccoon.’

JAB: chokfi.
‘rabbit.’

JAB: uh... *skulli?

JOH: :) ki'yo sa̲, ta'osso.
ki'yo sa-yimmi ta'osso
no 1SG.II-believe money
:) ‘I don't think so - money.’

JAB: *ta̲sso.

JOH: ^ta'osso.
‘money.’

JAB: *ta̲sso.

JOH: kani̲hkma ‘skulli’ aachikya Chahta' imanompa'.
kani̲hkma skulli aachi-hookya Chahta' im-anompa'
sometimes skulli say-but Choctaw DAT-word.language
‘sometimes they say say ‘skulli’ but it's a Choctaw word.’

JOH: ^'ta'osso'. yappat nanta?
‘money. what's this?’

JAB: "purse," uh... akitha'no.
‘purse, uh... I don't know.’

JAB: "a bag?"

JOH: i̲i.
‘yeah.’

JAB: $ akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘I don't know.’

JOH: hmm... yappa?
‘hmm... this?’

JAB: "‘knife’ is uh... man..." $ akitha'no.
‘knife is uh… man… I don't know.’

JOH: yappa?
‘this?’

JAB: uh... $ akitha'no. "plate," $ akitha'no.
‘uh... I don't know. plate, I don't know.’

JOH: yappa?
‘this?’

JAB: folosh?
‘spoon?’

JOH: ii, folosh.
‘yeah, spoon.’

JAB: "green beans uh maybe uh"... bala' okchamali'?
bala' okchamali-'
bean be.green-NMZ

JOH: ii, bala' okchamali'.
‘yeah, green beans.’

JAB: "turkey, can you say like" *fuddi'? "is that how you say it"?

JOH: ki'yo sa, Chahta' imanompa! ^‘chaloklowa’’.
ki'yo sa-yimmi Chahta' im-anompa' chaloklowa'
no 2SG.II-believe Choctaw DAT-word.language turkey
‘I don't think so, Choctaw word! ‘turkey.’’

JAB: huh?

JOH: |chaloklowa'|.
‘turkey.’

JAB: {chaloklowa'}
‘turkey.’

JOH: |chaloklowa'|, ii.
‘turkey, yeah.’

JAB: |chaloklowa'|
‘turkey’

JOH: "yeah". 'fakit' ishaacha' ki'yo! :)
yeah fakit ish-aachi-a' ki'yo
yeah turkey 2SG.I-say-MOD no
‘yeah. you can’t say ‘fakit!’ :)’

JOH: ishaachikya kanahmat hánglokmat ikchokmokiini.
ish-aachi-hookya kana-hmat hánglo-kmat ik-chokma-o-kiini
2SG.I-say-but someone-NOM.INDF hear-IRR.SS NEG.HYP-good-NEG-INTS
‘you say it but if someone hears it, it’s really not good.’

JOH: hmm... oh... chinchokka'akǫ, nanna...
chim-chokka'-akǫ nanna
2SG.III.DAT-house-ACC.CONTR what.INF
'hmm… oh… so your house now, what…'

JOH: nanna aayimmaką
nanna aayimma-ką
what.INF concerning-CMP.DS

issamanǫla'nika chinchokka'akǫ?
ish-am-anǫli-a'ni-ką chim-chokka'-akǫ
2SG.I-1SG.III.DAT-tell-POT-CMP.DS 2SG.III.DAT-house-ACC.CONTR

'could you tell me something about your house?'

JAB: |chin-|

JOH: chinchokka'? nanna aayimmaką..
chim-chokka' nanna aayimma-ką
2SG.III.DAT-house what.INF concerning-CMP.DS
'your house? something about it…

JAB: |chinchokka'|

JOH: ii.
'yeah.'

JAB: oh! "like a house!"

JOH: ii. anchokka'at ki'yo, chinchokka'. ishto, iskanno'si...
ii am-chokka'-at ki'yo chim-chokka' ishto iskanno'si
yes 1SG.III.DAT-house-NOM no 2SG.III.DAT-house be.big be.small
'yeah, not my house, your house. is it big, is it small...'

JAB: |iskanno'si|?
'small?'

JOH: pisa-kanihmika, ii. chinchokka'at iskanno'si. ii?
pisa-kanihmika ii chim-chokka'-at iskanno'si ii
what.color-DS.ACC yes 2SG.III.DAT-house-NOM be.small yes
'what does it look like, yeah. your house is small. yeah?'

JOH: katekta aatálla'a?
katekta aa-tálla'a
where LOC-be.located.SG.INAN.SBJ[29]
'where is it located?'

chinchokka'at katekta aatálla'a?
chim-chokka'-at katekta aa-tálla'a
2SG.III.DAT-house-NOM where LOC-be.located.SG.INAN.SBJ
'where is your house located?'

JAB: "I'd say... Sulphur?"

JOH: mmhmm. hmm... chipota chimáyya'sha?
chipota chim-áyya'sha
child 2SG.III.DAT-be.located.PL.SBJ
'mmhmm. hmm... do you have kids?'

JAB: |chipota|... |chimáyya'sha|…

JOH: mmhmm. chipota>
'mmhmm. kids>'

JAB: <"well chipota's like young, right?"

JOH: chipota chinkáttohmi?
chipota chim-káttohmi
child 2SG.III.DAT-have.how.many.INT
'how many kids do you have?'

JAB: |chipota|... |*takohmi|...

JOH: ^|chinkáttohmi|?
'how many do you have?'

JAB: |chinkáttohmi|...

JOH: uh-huh. ki'yo?
'uh-huh. no?'

JAB: ki'yo.
'no.'

JOH: hmm... uh, "language background. how many, like, background of your family, how long you been studying, anything like that?"

[29] This verb refers to "especially one with a flat bottom or one thought of as having open space above a flat bottom, such as a house or cup" (Munro and Willmond 1994).

JAB: "ooh, I made a concertive effort 2 years ago. "

JOH: "uhuh."

JAB: "and my grandfather, full-blood Chickasaw man, fluent speaker, and just the way I was told growin' up... he left, and my grandmother's white, and from what I was told, she wouldn't allow the language to be spoken."

JOH: mmhmm.

JAB: "so... minimal exerience."

JOH: "so just pickin up um... like phrases that were useful in whatever it was you were doing?"

JAB: uh-huh. "yeah, just>"

JOH: "<in that context, right?"

JAB: "right, yeah, working at the cultural center, what are some common everyday phrases I can learn."

JOH: "right."

JAB: "and, y'know."

JOH: "cool. alright, that's it!"

Ofi' Ishto' / Jason Burwell Second Assessment, 02/24/2016, conducted by Lokosh / Joshua D. Hinson.

JOH: chinchokmataa?
chim-chokma-taa
2SG.III.DAT-good-Q
'how are you?'

JAB: anchokma, $ ishnaakọ?
am-chokma ishno'-akọ
1SG.III.DAT-good 2SG.PRO-ACC.CONTR
'I'm good, and you?'

JOH: i̱i, anchokma. um...
i̱i am-chokma
yeah 1SG.III.DAT-good
'yeah, I'm good. um…'

JOH: nittaki ma̱ "or" obya um nittakaash,
nittaki yamma̱ obya nittak-kaash
morning DIST.DEM-ACC evening day-aforementioned
'this morning, or the evening um today,'

JOH: \nittakikaash\, nanta ishkati̱htaam?
nittaki-kaash nanta ish-katihmi-taam
morning-aforementioned what 2SG.I-do.what.INT-PST.Q
'this morning, what did you do?'

JAB: uh, nittakiaash, uh... sokchatok >
nittaki-kaash sa-okcha-tok
morning-aforementioned 2SG.II-awake-PST
'uh, this morning, uh... I woke up >'

JOH: i̱i.
'yeah.'

JAB: < hanná'li iklanna'*.
hánna'li iklanna-'
be.six be.half-NMZ
< '*at six-thirty.'

JAB: uh, kafi' ishkolitok. uh, uh... hmm…
kafi' ishko-li-tok
coffee drink-1SG.I-PST
'uh, I drank coffee. uh, uh... hmm…'

JAB: amalhkaniya. uh...
am-alhkaniya
1SG.III.DAT-forget
‘I forget. uh...’

JAB: híkki'yat yopilitok, |híkki'yat yopilitok|... "shower"?
híkki'ya-t yopi-li-tok
be.standing.SG.SBJ-PTCP bathe-1SG.I-PST
‘I took a shower, I took a shower.... shower?’

JOH: i̲i. |híkki'yat yopilitok.|
i̲i híkki'ya-t yopi-li-tok
yes be.standing.SG.SBJ-PTCP bathe-1SG.I-PST
‘yeah. ‘I took a shower’.’

JAB: |híkki'yat yopilitok.|

JOH: mmhmm.

JAB: uh... toksali' ayalitok.
toksali-' aya-li-tok
work-NMZ go-1SG.I-PST
‘uh… I went to work.’

JOH: mmhmm.

JAB: uh... ontochchí'na* um, uh... "Sonic" apalitok.
ontochchí'na Sonic apa-li-tok
be.eight Sonic eat-1SG.I-PST
‘*(at) eight um, uh... I ate Sonic.’

JOH: mmhmm.

JAB: uh... paska nipi', paska shokha' nipi' micha akankoshi' micha pishokchi' kallo'...
paska nipi' paska shokha' nipi' micha akankoshi' micha pishokchi' kallo-'
breat meat bread pig meat and chicken.egg and milk hard-NMZ
‘bread, meat… bread, pork, and egg and cheese...’

JOH: mmhmm.

JAB: uh, toklo'.
toklo-'
be.two-NMZ
‘uh, two (of them).’

JOH: nanna ittibalhtohookya ittalatta'a?
nanna itti-ibalhto-hookya ittalátta'a-'
what.INF RECP-be.in.with-but be.piled.up
'something mixed up but stacked up?'

JAB: ii!
'yeah!'

JOH: ^ittilatta'a'.
'a sandwich.'

JAB: |ittilatta'a'|.
'a sandwich.'

JOH: chohmi.
'kind of like it.'

JAB: ii.
'yeah.'

JOH: ittibalhto ki'yo, yappaafka %kilo%, yapaafka.
itti-ibalhto ki'yo yappa-fokha %kilo% yappa-fokha
RECP-be.in.with no PROX.DEM-about %%%% PROX.DEM-about
'not mixed up, that there %%% that there.'

JOH: ittalatta'a', uh-huh. chokma.
'sandwich, uh-huh. good.'

JAB: sakayyatok.
sa-kayya-tok
1SG.II-be.full-PST
'I was full.'

JOH: chikayyatok.
chi-kayya-tok
2SG.II-be.full-PST
'you were full.'

JAB: chokmatok.
chokma-tok
good-PST
'it was good.'

JOH: oh Mark iitaa... Minko' Imamboowa'akọ poaaipitatok.
Mark ii-táwwa'a minko' im-aboowa'-akọ po-aa-ipita-tok
Mark 1PL.I-be.both governor DAT-house-ACC.CONTR 1PL.II-LOC-feed-PST
'oh, Mark and I, the both of us, they fed us at Headquarters.'

JAB: …

JOH: Mark iitáwwa'a...
Mark ii-táwwa'a
Mark 1PL.I-be.both
'Mark and I, the both of us….'

JAB: uh-huh.

JOH: Minko' Imamboowa'? uh, "Governor" Aanọwatabi' imamboowa'akọ...
minko' im-aboowa' im-aboowa'-akọ
governor DAT-house DAT-house-ACC.CONTR
'Headquarters? uh, Governor Anoatubby's building....'

JAB: hmm.

JOH: popitatok
po-apita-tok
1PL.I-feed-PST
'they fed us.'

JOH: akankoshi', nipi' sipokni'...
akanka-oshi' nipi' sipokni-'
chicken-offspring meat be.old-NMZ
'chicken, bacon...'

JOH: shokha' nipi' folowa', hoshollak,
shokha' nipi' folowa-' hoshollak
pig meat ground.up-NMZ oatmeal
'sausage, oatmeal,'

nannani' lawakat áyya'sha. chokma.
nannani' lawa-kat áyya'sha chokma
fruit be.alot-CMP.SS be.located.PL.SBJ good
'fruit, it was a lot there. good.'

JOH: chimaabacha'na'ni!
chim-aabachi-a'ni-a'ni
2SG.III.DAT-point.at-POT-POT
'you should teach!'

JOH: chimaabachikma̲ chipita'chi-akookya.
chim-aabachi-kma̲ chi-ipita-a'chi-akookya
2SG.III.DAT-point.at-IRR.DS 2SG.II-feed-INC-also
‘if you teach, then they’ll feed you, too.’

JOH: inkma̲ um..."immersion session"aasho̲, nanta... ishthashfatpolitok?
inkma̲ -aasho̲ nanta isht-hash-fatpoli-tok
so.DS -in.on what.INT INSTR-2PL.I-talk.about-PST
‘so um… in immersion session, what... did y’all talk about?’

JOH: nittaki yamma?
nittaki yamma
morning DIST.DEM
‘that morning?’

JAB: |nanta|...

JOH: nanta, nantahaat ‘ishthashfatpolitok’?
nanta nanta-at isht-hash-fatpoli-tok
what what-NOM INSTR-2PL.I-talk.about-PST
‘what, what is ‘ishthashfatpolitok?’’

JOH: um, +ishthashanompoli+tok, nanta anompolitok?
isht-hash-anompoli-tok nanta anompoli-tok
INSTR-2PL.I-speak-PST what speak-PST
‘um, y’all talked about it, what did they say?’

JAB: ah, hmm...

JOH: yamma̲, mmhmm.
yamm-a̲
DIST.DEM-ACC
‘that one, mmhmm.’

JAB: holisso...
‘book…’

JOH: ^holba' holisso.
‘picture book.’

JAB: {holba' holisso}. i̲i.

JOH: mmhmm

JAB: "vocabulary".

JOH: mmhmm, chokma.
‘mmhmm, good.’

JOH: fatpolitok.
fatpoli-tok
talk.about-PST
‘they talked about it.’

JAB: himmaka'?
‘now?’

JOH: mmhmm, "yeah" himmaka' ^nittakika̲.
himmaka' nittaki-ka̲
now morning-CMP.DS
‘mmhmm, yeah this morning.’

JAB: *oksilaash...
‘last night...’

JOH: akookya?
‘also?’

JAB: oblaashaash?
‘yesterday?’

JOH: [oblaashaash.]
‘yesterday.’

JAB: [oblaashaash,]
‘yesterday,’

JOH: mmhmm.

JAB: i̲i.
‘yeah.’

JOH: Stan, um, Hannah táwwa'at... kanihmo'si ikayokpa'cho.
Stan Hannah táwwa'a-at kanihmo'si ik-ayokpánchi-o
Stan Hannah be.both-NOM a.little NEG.HYP-like-NEG
‘Stan, um, and Hannah, they both... don’t really like it.’

JOH: ishtaalhlhi' paafka ikayokpa'cho, hookya…
ishtaalhlhi-' yappa fokha ik-ayokpánchi-o hookya
be.last-NMZ PROX.DEM about NEG.HYP-like-NEG but
‘That last thing here they don't like it, but...’

JAB: [i̲i, i̲i].
['yeah, yeah.']

JOH: Hannah-at nannokaachikma̲... ishnookano aachi.
Hannah-at nannokaachi-kma̲ ishno'-hookano aachi
Hannah-NOM say.something-IRR.DS you.PRO-TOP say
'if/when Hannah says something... you say it.'

JOH: Hannah, Hannah nanna, um... ishtkolli'… aachikma̲...
Hannah Hannah nanna isht-kolli-' aachi-kma̲
Hannah Hannah what.INF INSTR-dig-NMZ say-IRR.DS
'Hannah, Hannah, if she says something (like) shovel…'

JAB: mmhmm.

JOH: poshno' ishtkolli', ilaachi. hookya...
poshno' isht-kolli-' ili-aachi hookya
1PL.PRO INSTR-dig-NMZ 1PL.I-say but
'then we, we say shovel. but...'

JOH: lokfishpiha' aachikya, |lokfishpiha' aachikya, lokfishpiha' aachikya|.
lokfishpiha' aachi-hookya
shovel say-but
'they say shovel but, they say shovel but, they say shovel but...'

JAB: mmhmm

JOH: nanna hooaachikma̲, ilaachiakookya.
nanna hoo-aachi-kma̲ ili-aachi-akookya
what 3PL.SBJ-say-IRR.DS 1PL.I-say-also
'what they say, we say, too.'

hmm... nanta chilhchifo?
nanta chi-holhchifo
what.INT 2SG.II-name
'hmm... what's your name?'

JAB: nanta saholhchifo?
nanta sa-holhchifo
what.INT 1SG.II-name
'what's my name?'

JOH: uh-huh.

JAB: saholhchifoat Ofi' Ishto'.
sa-holhchifo-at Ofi' Ishto'
1SG.I-name-NOM Dog Big
‘my name is Ofi' Ishto'.’

JOH: chokma. Naahollo' imanompa'akọ nanta chihochifo?
chokma Naahollo' im-anompa'-akọ nanta chi-hochifo
good English DAT-language-ACC.CNTR what.INT 2SG.II-name
‘good. In English what’s your name?’

JAB: saholhchifoat... &Naahollo' *holhchifoat "Jason Burwell."
sa-holhchif-at Naahollo' holhchifo-at
2SG.II-name-NOM English name-NOM
‘my name is... *English* name is Jason Burwell.’

JOH: i̱i.
‘yeah.’

JOH: inkmat um chioshiitiikat nanta holhchifo?
inkmat chi-oshiitiik-at nanta holhchifo
so.SS 2SG.II-daughter-NOM what.INT name
‘so um what’s your daughter’s name?’

JAB: saoshiitiik holhchifoat "Savannah Burwell."
sa-oshiitiik holhchifo-at
1SG.II-daughter name-NOM
‘my daughter's name is Savannah Burwell.’

JOH: chokma.
‘good.’

JOH: "Savannah"akoot katekta atta?
Savannah-akoot katekta atta
Savannah-SBJ.CONTR where live.in
‘Savannah, where does she live?’

JAB: uh, *"Savannah"… Ada... *ishánta.
Savannah Ada ish-ánta
Savannah Ada 2SG.I-be.there.SG.SBJ
‘uh Savannah…*you’re in Ada.

JOH: ^atta.
live.in
‘^she lives in.’

JAB: uh, Ada ánta, i̲i, |ánta|.
Ada ánta i̲i ánta
Ada be.there.SG.SBJ yes be.there.SG.SBJ
‘uh, she’s in Ada, yeah, she’s (there).’

JOH: inkmat, Ada...
inkmat Ada
so.SS Ada
‘so, Ada...’

attahookya holissaapisa' katimpi aya?
atta-hookya holissaapisa' katimpi aya
live.in-but school which go
‘she lives in (Ada) but which school does she go to?’

JAB: uh, ki'yo, uh...
‘uh, no, uh...’

"Savannah" holisso-aapisa' "Southeastern". "Durant" bla.
Savannah holisso-aapisa' Southeastern Durant píla
Savannah school Southeastern Durant just.LOC
‘Savannah Southeastern school, in Durant.’

JOH: i̲i. mmhmm. inkmat, um...
‘yeah. mmhmm. so, um...’

nittak katimpi... aya "Southeastern”a̲? Monti', Winsti'...
nittak katimpi aya Southeastern-a̲ Monti' Winsti'
day which go Southeastern-ACC Monday Wednesday
‘which days does she go to Southeastern? Monday, Wednesday...’

Naalhchifa' Nittakma̲?
Naalhchifa' Nittak-ma̲
Saturday-IRR.DS
‘on Saturdays?’

JAB: uh, akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘uh I don't know.’

JOH: chikitha'no.
chik-ithana-o
2SG.N-know-NEG
‘you don’t know.’

JAB: akitha'no.
ak-ithana-o
1SG.N-know-NEG
‘I don’t know.’

JOH: hookya, Chikashshiyaakni' aatoksali?
hookya Chikashsha-im-yaakni' aa-toksali
but Chickasaw-DAT-land LOC-work
‘but, does she work at Chickasaw Nation?’

\intoksali\? "Savannah"?
in-toksali
DAT-work
‘\work for\? Savannah?’

JAB: ii, ii, "headstart."
yeah, yeah, headstart.

JOH: "headstart" ho'mi. inkmat holissaapisa' lhopolla'chikmat…
headstart ho'mi inkmat holissaapisa' lhopolli-a'chi-kmat
headstart ok so.SS school pass-INC-SS.IRR
‘headstart, ok. so when she finishes school...’

chipota imaabacha'chi?
chipota im-aabachi-a'chi
child DAT-point.at-INC
‘is she going to teach kids?’

"or" holisso.... pisacha'chi? "Savannah"-at? "like" um, oh...
or holisso pisa-chi-a'chi Savannah-at
or book look.at-CAUS-INC Savannah-NOM
‘or is she going to teach? Savannah? like um, oh...’

nanta holhchifo, holissaapisa'ookano uh... "elementary school" ma...
nanta holhchifo holissaapisa'-hookano elementary shool yamm-a
what.INT name school-TOP elementary school DIST.DEM-ACC
‘what’s the name, that school uh... that elementary school,’

holisso pisacha'chi? himmako'si, chipota nanna iipisacha'chi? "degree" ma?
holissa pisa-chi-a'chi himmako'si chipota nanna
book look.at-CAUS-INC right.now child what.INF
‘is she going to teach? right now, %kids we're going to look at something? the degree?’

JAB: oh! uh, ii, uh "communications."

JOH: "communications, ok."

JAB: "May."

JOH: chokma.
‘good.’

JOH: um... Chikashshi̲yaakni'... intoksala'ni bannakat i̲'ma?
Chikashsha-im-yaakni' im-toksali-a'ni banna-kat í'ma
Chickasaw-DAT-land DAT-work-POT want-CMP.SS still
‘um... Chickasaw Nation... does she still want to work for them?’

JAB: i̲i, i̲i.
‘yeah, yeah.’

JOH: "yeah" ayaashacha'chi ki'yo.
ayaashachi-a'chi ki'yo
crowd-INC no
‘yeah she's not going to crowd them.’

píllat intoksalikat i̲'ma.
pílla-t im-toksali-kat i̲'ma
just.so-PTCP DAT-work-CMP.SS still
‘so she still works for them.’

JAB: i̲i, i̲i.
‘yeah, yeah.’

JOH: "communications" ba' nannalhchihma̲ ibaa-toksala'chi.
communications ba' nannalhchihma̲ ibaa-toksali-a'chi
communications or whatever with-work-INC
‘communications or whatever, she’ll work with them.’

JAB: mmhmm.

JOH: um... "headstart" aatoksalikat ayokpánchi? hookya...
headstart aa-toksali-kat ayokpánchi hookya
headstart LOC-work-CMP.SS like but
‘um... does she like the headstart that she works at? but...’

JAB: uh kanihmo'si.
‘uh a little.’

JOH: i̲i, kanihmo'si, "good". anookano, chipota iskanno'sikma̲...
i̲i kanihmo'si good anookano chipota iskanno'si-kma̲
yeah a.little good 1SG.PRO.CONTR.FOC child be.little-IRR.DS
'yeah, a little, good. so for me, when kids are little...'

holisso pisashla'ni ki'yo.
holisso pisa-chi-li-a'ni ki'yo
books look.at-CAUS-1SG.I-POT no
'I can't teach them.'

JAB: mmhmm.

JAB: *taha.
'done.'

JOH: ^antaha, :).
am-taha
1SG.III.DAT-worn.out
'I'm wore out. :)'

JAB: {antaha}, i̲i.

JOH: "but" afammi...toklofkha "Byng" holissapisa'ako̲ aaimaabachilitok.
but afammi toklo-paafkha Byng holissaapisa'-ako̲ aa-im-aabachi-li-tok
but years two-about Byng school-ACC.CONTR LOC-DAT-point.at-1SG.I-PST
'but for about two years at Byng school I taught.'

hookya sashilombish "like" antahatokchi̲, himmako'si'kano…
hookya sa-shilombish like am-taha-tok-hchi̲ himmako'si'kano
but 1SG.II-soul like 1SG.III.DAT-worn.out-PST-DUB right.now
'but my soul like must have been worn out. right now…'

imaabachila'ni iksabanno.
im-aabachi-li-a'ni ik-sa-banna-o
DAT-point.at-1SG.I-POT HYP.NEG-1SG.II-want-NEG
'I might not want to teach.'

inkma̲ um... ittibaapishi chimáyya'sha?
inkma̲ ittibaapishi chim-áyya'sha
so.ds siblings 2sg.iii-be.located.pl.sbj
'so um... do you have siblings?'

JAB: …

JOH: |ittibaapishi?|
'siblings?'

JAB: ki'yo.
‘no.’

JOH: ki'yo?
‘no?’

JAB: ki'yo, uh intiik.
‘no, uh sister.’

JOH: intiik.
‘sister.’

JAB: *chaffa intiik.
‘one sister.’

JOH: intiik, nanta holhchifo chintiikat?
intiik nanta holhchifo chim-tiik-at
sister what.INT name 2SG.III.DAT-sister-NOM
‘sister, what’s your sister’s name?’

JAB: *saintiik holhchifoat "Beth Burwell". loshomatok.
sa-im-tiik holhchifo-at Beth Burwell loshoma-tok
1SG.II-DAT-sister name-NOM Beth Burwell die-PST
‘my sister’s name is Beth Burwell. she died.’

JOH: loshomatok, loshomatok. ishnaakillat.
loshoma-tok ishnaakillat
die-PST just.you
‘she died, she died. just you.’

JOH: chintiikat chaffa' loshomahootokoot
chim-tiik-at chaffa-' loshoma-hootokoot
2SG.III.DAT-sister-NOM be.one-NMZ die-because.SS
‘because your one sister died,’

ishnookano ishnaakillat.
ishnookano ishnaakillat
2SG.PRO.CONTR.FOC just.you
‘it’s just you.’

uh, inakfi' ikchimiksho?
im-nakfi' ik-chim-iksho
DAT-brother HYP.NEG-2SG.III.DAT-not.be
‘uh, you don’t have brothers?’

JOH: intiik illa [ikchimiksho].
im-tiik illa ik-chim-iksho
DAT-sister only NEG.HYP-2SG.III.DAT-not.be
‘just a sister, you don’t have them.’

JAB: [iksamiksho].
ik-am-iksho
NEG.HYP-1SG.III.DAT-not.be
‘I don’t have them.’

JOH: chokma.
‘good.’

ishnaak illa. chinki', chinki'ookano loshoma-akookya,
ishno'-ak illa chim-ki' chim-ki'-hookano loshoma-akookya
2SG.PRO-OBL only 2SG.III.DAT-father 2SG.III.DAT-father-TOP die-also
‘just you. your dad, your dad died also,’

"or" okcha̲akat i̲'ma? chinki'?
or okcha̲a-kat i̲'ma chim-ki'
or be.alive-CMP.SS still 2SG.III.DAT-father
‘or is he still alive? your dad?’

JAB: anki'at loshomatok.
am-ki'-at loshoma-tok
1SG.III.DAT-father-NOM die-PST
‘my dad died.’

JOH: |loshomatok|, uh-huh. afammi káttohmikaash loshomatok?
loshoma-tok afammi káttohmi-kaash loshoma-tok
die-PST year be.how.many.INT-about die-PST
‘he died, uh-huh. about how old was he when he died?’

JAB: uh... pokoli hanná'li awa, talhlhá'pi.
pokoli hanná'li awa-talhlhá'pi
ten six and.NUM-five
‘uh... sixty-five.’

JOH: talhlhá'pikaasho̲ loshomatok. katekta aaminti, chinki'at?
talhlhá'pi-kaasho̲ loshoma-tok katekta aa-minti chim-ki'-at
five-about.FOC die-PST where LOC-come 2SG.III.DAT-father-NOM
‘about five years ago he died. where is he from, your dad?’

JOH: katekta aaminti?
katekta aa-minti
where LOC-come
‘where is he from?’

JAB: |katekta...aaminti...|

uh, aachi anowa'.
aachi anowa'
say again
‘uh, say (it) again.’

JOH: chinki'at katekta aaminti?
chim-ki'-at katekta aa-minti
2SG.III.DAT-father-NOM where LOC-come
‘where is your dad from?’

anookano, Texas aamintili, ishno' Ada ishaaminti...
anookano Texas aa-minti-li ishno' Ada ish-aa-minti
1SG.PRO.CONTR.FOC Texas LOC-come-1SG.I 2SG.PRO Ada 2SG.I-LOC-come
‘me, I'm from Texas, you're from Ada...’

JAB: oh, oooh, uh uh... Coleman.

JOH: Coleman?

JAB: |Coleman, Coleman| *mintitok.
Coleman minti-tok
Coleman come-PST
‘Coleman, he came Coleman.’

JOH: ^aamintitok.
aa-minti-tok
LOC-come-PST
‘he came from (there).’

JAB: {aamintitok.}

JOH: mmhmm, chokma.
‘mmhmm, good.’

okchaakat i'makaasho chinki'at katekta aatoksali?
okchaa-kat i'ma-kaasho chim-ki'-at katekta aa-toksali
be.alive-CMP.SS still-about.FOC 2SG.III.DAT-father-NOM where LOC-work
‘when he was still alive where did your dad work at?’

JAB: uh... hmm... uh... nipi'...
‘uh... hmm... uh... meat..’

JOH: nipi'?
‘meat?’

JAB: to~ toksali, toksali'at nipi' "industry"*.
toksali toksali-'-at nipi'
work work-nmz-nom meat
‘wo~ work, the work is meat industry.’

JOH: ii.
‘yeah.’

nipi' aabashli'...
nipi' aa-bashli'
meat LOC-cut
‘a meat processing place...’

JAB: anki'at...
am-ki'-at
1SG.III.DAT-father-NOM
‘my dad..’

JOH: uh-huh, chinki'at um...
chim-ki'-at
2SG.III.dat-father-NOM
‘uh-huh, your dad um...’

nipi'... kanchi intoksali.
nipi' kanchi im-toksali
meat sell DAT-work
‘he worked selling meat.’

JAB: ii.
‘yeah.’

JOH: "like" waaka'at a’lacha...
waaka'-at ala-cha
cow-NOM arrive-and.SS
‘like a cow gets there and...’

"y’know" abi. bashlikaash uh...
abi bashli-kaash
kill cut-about
‘y’know, he kills it. he, like, cut it uh...’

JAB: uh, ki'yo, uh...
‘uh, no, uh...’

JOH: kanchi...
‘selling...’

JAB: "boss"

JOH: oh, mmhmm, ^imishkoboka'.
‘oh, mmhmm, boss.’

nipi' bashlikat, imishkoboka'attook.
nipi' bashli-kat imishkoboka'-a-ttook
meat cut-CMP.SS boss-be-PST.REM
‘he was the boss that cut up the meat.’

JAB: mmhmm

JOH: chokma. inkmat um, oh...
‘good. so um, oh...’

ta~ afammi talhlhá'pikma̲....
afammi talhlhá'pi-kma̲
year be.five-IRR.DS
‘fi~ in five years...’

nanta ishkatihma'ni chibanna? |afammi talhlhá'pikma̲|?
nanta ish-katimi-a'ni chi-banna afammi talhlhá'pi-kma̲
what 2SG.II-do.what.INT-POT 2SG.II-want year be.five-IR.DS
‘what do you want to be doing? in five years?’

|nanta ishkatihma'ni chibanna|?
nanta ish-katihmi-a'ni chi-banna
what 2SG.II-do.what.INT-POT 2SG.II-want
‘what do you want to be doing?’

JAB: aachi ano̲wa'.
‘say (it) again.’

JOH: afammi...
‘year...’

JAB: i̲i.
‘yeah.’

JOH: "20"... "2021"ookma̲ nanta ishkatihma'ni chibanna?
2021 oo-kma̲ nanta ish-katihmi-a'ni chi-banna
2021 be-IRR.DS what 2SG.II-do.what.INT-POT 2SG.II-want
‘in 20… 2021, what do you want to be doing?’

nanta *ishkatihmi chibanna? "er" nanta \ishktihma'chi\?
nanta ish-katihmi chi-banna nanta ish-katihmi-a'chi
what 2SG.I-do.what.INT 2SG.II-want what 2SG.I-do.what.INT-INC
‘what do you want *you do? er what will you do?’

JAB: uh...

JOH: chikakostini'chohookma̲, chokma.
chik-akostinichi-o-hookma̲ chokma
2SG.N-understand-NEG-if.DS good
‘if you don't understand, it's ok.’

JAB: ah, akostinhínch~...
‘uh understand...’

JOH: inkma%...
‘so...’

hmm... oh, himmako'sikano katekta ishatta?
himmako'sikano katekta ish-atta
but.right.now where 2SG.I-live.in
‘hmm... oh but right now, where do you live?’

JAB: uh... Sulphur *atta, \attali\.
Sulphur atta atta-li
Sulphr live.in live.in-1SG.I
‘uh... Sulphur live, I live in.’

JOH: mmhmm, uh...

Larryat chibaa-á̲shwakat í̲'ma?
Larry-at chi-ibaa-á̲shwa-kat í̲'ma
Larry-NOM 2SG.II-with-be.located.DU.SBJ-CMP.SS still
‘does Larry still live with you? ‘

JAB: ki'yo.
‘no.’

JOH: ishnaak illat.
‘just you.’

JAB: ki'yo.
‘no.’

JOH: ishnaak illat.
‘just you.’

JAB: i̲i.
‘yeah.’

JOH: chinchokka' chintálla'a? chokma. hmm...
chim-chokka' chim-tálla'a chokma
2SG.III.DAT-house 2SG.III.DAT-be.located.SG.INAN.SBJ good
‘you have your house? good. hmm...’

JAB: awa-ontoklo...
‘seventeen...’

hashi'aakottola "Marietta" hina'.
‘west side (of) Marietta street.’

JOH: oh, chokma.
‘oh, good.’

“like," píllat...
‘like, just...’

"Sulphur" hayaka pillakma̲hookya "Sulphur" ittintakla'...
Sulphur hayaka' píla-kma̲-hookya Sulphur ittintakla'
Sulphur way.off just.loc-IRR.DS-but Sulphur in.between
‘outside of Sulphur but in between Sulphur...’

JAB: i̲i, uh...
‘yeah, uh...’

JOH: "yeah" chokka' lokoli' ma̲.
chokka' lokoli' yamm-a̲
house neighbors DIST.DEM-ACC
‘yeah in that neighborhood’

JAB: *naksika' "Arteisan hotel."
‘on the side of the Artesian hotel.’

JOH: i̲i.
‘yeah.’

JOH: oh, chokma. chokma. inkmat, oh...
chokma inkmat
good so.SS
'oh, good. good. so, oh...'

nanta katihmi uh... yappat? nanta katihmi?
what do.what.INT PROX.DEM what do.what.INT
'what's he doing... this one? what's he doing?'

JAB: issi' kosoma'.
'goat.'

JOH: ii. issi' kosoma'at... nanta katihmi?
ii issi' kosoma-'-at nanta katihmi
yes deer be.smelly-NMZ-NOM what.INT do.what.INT
'yeah, the goat... what's he doing?'

JAB: uh...

JOH: Clovis ishimasilhha.
Clovis ish-im-asilhha
Clovis 2SG.III-DAT-ask
'ask Clovis.'

JAB: híkki'ya?
'standing?'

JOH: ki'yo.
'no.'

imasilhhakat 'nanta katihmi.' |imasilhha|.
im-asilhha-kat nanta katihmi im-asilhha
DAT-ask-CMP.SS what do.what.INT DAT-ask
'ask him 'what's he doing.' ask him.'

JAB: oh, uh Kowi' Ishto', nantakat~ *issi' nanta katihmi?
'oh uh Kowi' Ishto', what~ deer is doing what?'

uh, *\issi' kosoma'\ nanta katihmi?
'uh, goat what is he doing?'

CLH: wáyya'a.
'standing.'

JOH: ii.
'yeah.'

JAB: {wáyya'a, wáyya'a}.

JOH: "yeah" ponkannoh.
pom-inkannoh
1PL.III.DAT-have.several
'yeah we have several.'

nanta katihmi?
'what are they doing?'

JAB: *waaka' wáyya'a.
'cow standing.'

JOH: chokma. yappa, katischi ishaacha'ni?
chokma yappa katischi ish-aachi-a'ni
good PROX.DEM how.INT 2SG.I-say-POT
'good. this one, how do you say it?'

JAB: hmm akitha'no.
'hmm I don't know.'

JOH: chokfaalhpooba'
'sheep.'

JAB: {chok~}

JOH: chokfaalhpooba'.
'sheep.'

JAB: chokfaalhpooba'.
'sheep.'

JOH: mmhmm. chokfaalhpooba'. chokfaalhpoobaat…
'mmhmm. sheep. the sheep is…'

hashshok apat wáyya'a. hmm yapponno'.
hashshok apa-t wáyya'a yappono'
grass eat-PTCP stand.NONHUM[30] this.one
'standing there eating grass. hmm this one.'

JAB: *soba' wáyya'a.
'horse standing.'

JOH: ii.

[30] This verb is usually used with four-legged animals, as opposed to *híkki'ya*, which is for humans and two-legged animals.

JAB: soba'... uh... *apala'chi.
soba' apa-li-a'chi
horse eat-1SG.I-INC
‘horse... uh... *I'm going to eat it.’

JOH: ^sobaat uh nanta ^apa'chi?
soba-at nanta apa-a'chi
horse-NOM what eat-INC
‘the horse is going to eat what?’

JAB: apat~ uh.. *masọ'fa'.
‘eating uh.... *bald thing.’

JOH: i̱i, takọlo ^masọ'fa'.
‘yeah, apple.’

JAB: {takọlo masọ'fa'}.

JOH: ^apa'chi.
apa-a'chi
eat-INC
‘he’s going to eat them.’

JAB: {apa'chi}.

JOH: uh... nanta katihmi?
‘uh... what’s he doing?’

JAB: nita'... *nita' híkki'ya.
‘bear... bear standing.’

JOH: i̱i, ^nitaat híkki'ya.
i̱i nita'-at híkki'ya
yes bear-NOM stand.SG.SBJ
‘yeah, the bear is standing.’

JAB: uh... chofaak.
‘uh... fork.’

"no" uh, naf~ \naafka\.
‘no uh clothing.’

JOH: i̱i naafka.
‘yeah, clothing.’

JOH: yappo̲ chofaakoshi', chofaakoshi'. yappon chofaakoshi'.
‘this one is a pin. a pin, this one is a pin.’

JAB: uh-huh

JOH: yappa, chofaakoshi'.
‘this, a pin.’

JAB: |chofaakoshi'|.

JOH: naafka, naafka... ishkashoochi'.
‘clothing, clothing... napkin.’

JAB: |ishkashoochi'|?

JOH: i̲i, ^ishkashoochi'.
‘yeah, napkin.’

nannaalhchohma, yappon.
‘something like that, this one.’

JAB: oh, uh... iabiso̲wa'.
‘oh uh.. socks.’

JOH: ii, |iabiso̲wa'|.
‘yeah, socks.’

tákkohli.
‘are hanging*[31].’

JAB: |tákkohli|.

JOH: tákkohli.
‘hanging.’

JAB: |tákkohli|, oh i̲i.

JOH: talaali.
‘he’s setting that one down.’

nitaat... ishtkashoochi' talaali. tokloaafka ‘tákkohli.’

nita-at	ishtkashoochi'	talaali	toklo-paafka	tákkohli
bear-NOM	handkerchief	set.down.SG.OBJ	two-about	hanging.DL.SBJ

‘the bear... is setting down one handkerchief. (if) about two, they’re hanging.’

[31] tákka'li is likely the verb that was meant.

JAB: |tákkohli|.
‘hanging.’

JOH: mmhmm.

lą̲wakmat ‘takoht mą̲a’. kat̲ischi̲ ishaacha'ni?
lą̲wa-kmat takohtmą̲a kat̲ishchi̲ ish-aachi-a'ni
be.a.lot-REAL.SS hanging.TPL.SBJ how.INT 2SG.I-say-POT
‘when it’s more, it’s ‘they’re hanging’. how would you say it?’

JAB: uh... fochosh.
‘uh… duck.’

JOH: i̲i, fochosh. yappa?
‘yeah, duck. this one?’

ishith̲ą́nakyi?
‘do you know?’

JAB: uh.. amalhkaniya.
am-alhkaniya
1SG.III.DAT-forget
‘uh... I forgot.’

JOH: fohi'.
‘bee.’

JAB: fohi'!
‘bee!’

JOH: i̲i, fohi'. fohi'at nanta katihmi?
‘yeah, bee. the bee, what's he doing?’

JAB: uh... wakaa.
‘uh… flying.’

JOH: i̲i, wakaa.
‘yeah, flying.’

JAB: |wakaa.|
‘flying.’

JOH: chokma. kat̲ishchi̲ ishaacha'ni? ishith̲ą́na?
chokma kat̲ishchi̲ ish-aachi-a'ni ish-ith̲ą́na
good how.INT 2SG.I-say-POT 2SG.I-know.NGR
‘good. how would you say it? do you know?’

JAB: akitha'no.
‘I don't know.’

JOH: piini' wakaa'.
‘airplane.’

JAB: |piini'| |piini' wakaa'|.

JOH: :) 'piini", ishithą́na? 'piini"?
piini' ish-ithą́na piini'
boat 2SG.I-know.NGR boat
‘:) ‘boat,’ do you know it? ‘boat’?’

JAB: oh! i̱i.

JOH: piini' waaka'. :) "yeah." í̱la, nanní̱la'.
piiini' waaka-' yeah í̱la nanna-í̱la-'
boat fly-NMZ yeah weird what.INF-weird-NMZ
‘‘flying boat.’ :) yeah. it’s weird, something weird.’

hmm yappat nanta?
‘hmm what’s this?’

JAB: shokha'.
‘a pig.’

JOH: i̱i. nanta sho'li?
‘yeah. what’s he carrying?’

JAB: uh... takǫ̱lo masǫ̱'fa'?
‘uh… apples?’

JOH: i̱i, takǫ̱lo masǫ̱'fa'. sho'lit ą́a. hmm...
i̱i takǫ̱lo masǫ̱'fa-' sho'li-t ą́a
yeah peach be.bald-NMZ carry-PTCP go.around
‘yeah, apples. he's going around carrying them. hmm...’

yappa.
‘this.’

JAB: uh... hattak shawi' imimpa'.
‘uh… banana.’

JOH: i̱i, chokma.
‘yeah, good.’

JOH: yammak illa.
‘that's it.’

JAB: yammak illa?
‘that’s it?’

JOH: ii! chimponna'chi anhili.
ii chim-ponna-a'chi anhi-li
yes 2SG.III.DAT-be.good.at-INC hope-1SG.I
‘yeah! you'll be good at it I hope.’

Ofi' Ishto' / Jason Burwell Third Assessment, 11/15/2016, conducted by Ihoo Himitta' / Hannah Pitman.

HAP: saholhchifoat Ihoo Himitta'.
sa-holhchifo-at Ihoo Himitta'
1SG.II-name-NOM Ihoo Himitta'
‘my name is Ihoo Himitta'.’

"Hannah Pitman." ishnaakọ, nantahaat chiholhchifo?
Hannah Pitman ishno'-akọ nanta-at chi-holhchifo
Hannah Pitman 2SG.PRO-ACC.CONTR what.INT-NOM 2SG.II-name
‘Hannah Pitman. and you, what is your name?’

JAB: saholhchifoat Ofi' Ishto'.
sa-holhchifo-at
1SG.II-name-NOM
‘my name is Ofi' Ishto'.’

uh himmika' saholhchifoat Ofi' Ishto' Imilhlha'!
himmaka' sa-holhchifo-at Ofi' Ishto' imilhlha-'
today 1SG.II-name-NOM Ofi' Ishto be.scared-NMZ
‘uh today my name is Scared Ofi' Ishto'!’

HAP: :) katekta ishatta?
katekta ish-atta
where 2SG.I-live.in
‘:) where do you live?’

JAB: uh "Sulphur Oklahoma" attali.
Sulphur Oklahoma atta-li
Sulphur Oklahoma live.in-1SG.I
‘uh I live in Sulphur, Oklahoma.’

HAP: mmhmm

JAB: uh, uh... awa-ontoklo' hashi'aakottola'…
awa-ontoklo' hashi'aakottola'
be.twelve-NMZ west
‘uh (at) 12 West…’

"Marietta" hina', milínka'si "Artesian" aanosi'.
Marietta street near Artensian hotel
‘Marietta street, near the Artesian hotel.’

HAP: mmhmm, um... chinchokka-chaffa' aayimma, amanoli.
chim-chokkachaffa' aayimma am-anoli
2SG.III.DAT-family concerning 1SG.III.DAT-tell
‘mmhmm, um... tell me about your family.’

JAB: aachi anowa'.
‘say (it) again.’

HAP: chinchokka-chaffa'...
chim-chokkachaffa’
2SG.III.DAT-family
‘your family…’

JAB: uh-huh

HAP: yamma aayimma?
DIST.DEM concerning
‘about that?’

amanoli.
am-anoli
1SG.III.DAT-tell
‘tell me.’

JAB: uh, anchokka'... anchokka-chaffa'...
am-chokka' am-chokkachaffa'
1SG.III.DAT-house 1SG.III.DAT-family
‘uh, my house... my family...’

hmm... *anchokka-chaffa'...
‘hmm... my family...’

"Fillmore" hofantitok.
Fillmore hofanti-tok
Fillmore be.born-PST
‘was born in Fillmore.’

HAP: mmhmm

JAB: |"Fillmore", hofantitok|?
‘they were born in Fillmore?’

HAP: mmhmm

JAB: |"Fillmore" hofantitok|.
‘they were born in Fillmore.’

HAP: nanta>
‘what>’

JAB: <oh, uh...
‘<oh, uh...’

|anchokka'|, yappa, |anchokka-chaffa' imanoli,| mmhmm, uh...
am-chokka' yappa am-chokkachaffa' im-anoli
1SG.III.DAT-house PROX.DEM 1SG.III.DAT-house DAT-tell
‘my house, this, my family tell them, mmhmm, uh...’

uh, inki'? ishki'?
‘uh, dad? mom?’

HAP: mmhmm

JAB: uh saishki' holhchifoat "Gingy Nail.”
sa-ishki' holhchifo-at
1SG.II-mother name-NOM
‘uh my mom's name is Gingy Nail.’

uh... uh... *anki'at...
am-ki'-at
1SG.III.DAT-father-NOM
‘uh... uh... my dad...’

holhchifoat "Bedford Burwell". loshomatok. uh *saintiik...
holhchifo-at Bedford Burwell loshoma-tok sa-im-tiik
name-NOM Bedford Burwell die-PST 1SG.II-DAT-sister
‘his name is Bedford Burwell. he died. uh my sister...’

/antiik/ |antiik| holhchifoat "Beth Burwell". loshomatok. uh...
am-tiik holhchifo-at Beth Burwell loshoma-tok
1SG.III.DAT-sister name-NOM Beth Burwell die-PST
‘my sister, my sister's name is Beth Burwell. she died. uh...’

saoshiitiik holhchifoat "Savannah Burwell."
sa-oshiitiik holhchifo-at
1SG.II-daughter name-NOM
‘my daughter's name is Savannah Burwell.’

HAP: mmhmm

JAB: hmm... yammak illa.
‘hmm… that’s it.’

HAP: ho'mi. aboowa' yappa...
ok building PROX.DEM
'ok. this building....'

yuuzicha... ishonakmat, um...
yuuzi-cha ish-ona-kmat
use-and.SS 2SG.I-arrive.there-IRR.SS
'use it and if you arrived there um...'

nanna ishkanihma'chikat, amanǫli.
nanna ish-katihmi-a'chi-kat am-anǫli
what.INF 2SG.I-do.what.INT-POT-REAL.SS 1SG.III.DAT-tell
'tell me what you would do.'

JAB: aachi anǫwa'.
'say (it) again.'

HAP: aboowa' yappa...
building PROX.DEM
'this building…'

JAB: i̱i.
'yeah.'

HAP: ishonakmat amanǫli nanna ishkanihma'chikat.
ish-ona-kmat am-anǫli nanna ish-kanihmi-a'chi-kat
2SG.I-arrive-IRR.SS 1SG.III.DAT-tell what.INF 2SG.I-do.what.INF-POT-CMP.SS
'if you arrived there, tell me something that you would do.'

JAB: uh... hmm, anchokka', ayali.
am-chokka' aya-li
1SG.III.DAT-house go-1SG.I
'hmm I go to my house.'

HAP: mmhmm

JAB: anchokka' ayali. uh, anchokka' *chokwaa.
am-chokka' aya-li am-chokka' chokkowa
1SG.III.DAT-house go-1SG.I 1SG.III.DAT-house enter
'I go to my house. uh, go into my house.'

|chokwaa| uh...
'go into uh...'

hmm… hoshowa sabanna.
hoshowa sa-banna
pee 1SG.II-want
‘hmm… I want to pee.’

HAP: :)

JAB: uh, uh... toyyali.
toyya-li
climb-1SG.I
‘I climb.’

|toyyali? toyyali.|
‘I climb? I climb.’

aboowoshi' ayali. |ayali|, uh...
aboowoshi' aya-li
bathroom go-1SG.I
‘I go to the bathroom. I go, uh...’

hoshowa, hoshowali? *sahoshowa?
hoshowa hoshowa-li sa-hoshowa
pee pee-1SG.I 1SG.II-pee
‘pee, I pee? *I pee?’

HAP: :)

JAB: |hoshowa, hoshowali? hoshowali.|
‘pee, I pee? I pee.’

falaa. oh!
‘long. oh!’

HAP: :)

JAB: uh, uh... chokma, anchokma, anchokma *himmako'sa̲.
chokma am-chokma am-chokma himmako'sa̲
good 1SG.III.DAT-good 1SG.III.DAT-good right.now
‘uh, uh... good, I'm good, I'm good now.’

um... hattak aabinohli', |aabinohli'|...
hattak aa-binohli-'
people LOC-sit.down.TPL.SBJ-NMZ
‘the living room, living room...’

HAP: mmhmm

JAB: ayali. uh... aaombiniili' falaa'...
aya-li aa-ombiniili-' falaa-'
go-1SG.I LOC-sit.on-NMZ be.long-NMZ
‘I go. uh... the couch...’

*biniili, aaombiniili' falaa' *bínni'li, |bínni'li|.
‘sit down, the couch sitting, sitting.’

uh... holba' aapisa' pisali.
holba'aapisa' pisa-li
television look.at-1SG.I
‘uh... I watch TV.’

HAP: mmhmm.

JAB: um... uh... uh...

ik~ oh holba' aap~ holba' aapisa' pisali* iksho.
holba'aapisa' pisa-li iksho
television look.at-1SG.I not.be
‘I *stop watching TV.’

hmm... hmm...

‘saniha ishtaya*,’ aashlitok. uh ‘haknip kanalli...
sa-niha ishtaya aachi-li-tok haknip kanalli
1SG.II-be.fat start say-1SG.I-PST body move
‘‘I'm starting to get fat,’ I said. uh ‘exercise…’

sabanna,’ Ofi' Ishto'* *aashlitok. ii, ii, uh...
sa-banna Ofi' Ishto' aachi-li-tok ii
1SG.II-want Ofi' Ishto' say-1SG.I-PST yes
‘I want to,’ Ofi' Ishto' I said. yeah, yeah, uh...’

*chiaalhpí'sa.
chi-aalhpí'sa
2SG.II-be.right
‘*you’re right.’

HAP: :)

JAB: uh... |*anchokka'|...
‘uh… my house...’

|aya, ayali|.
‘go, I go.’

HAP: ^kochcha'.
‘outside.’

JAB: {kochcha'}?

HAP: |kochcha'|.
‘outside.’

JAB: anchokka' kochcha' haknip kanalli* ayali*.
am-chokka' kochcha' haknip kanalli aya-li
1SG.III.DAT-house outside body move go-1SG.I
‘outside my house exercise I go.’

uh... hattak aa-áyya'sha' no̲wali, |no̲wali|.
hattak aa-áyya'sha-' no̲wa-li
people LOC-be.located.TPL.SBJ-NMZ walk.around-1SG.I
‘uh... I walk around the park, I walk around.’

HAP: mmhmm

JAB: uh... pokoli, pokoli tochchí'na minnat*.
pokoli tochchí'na minnat
be.ten be.three minute
‘uh… ten, thirty minutes.’

hmm mmhmm mmhmm...

‘chinchokmataam, A̲soba?’
chim-chokma-taam am-soba
2SG.III.DAT-good-PST.Q 1SG.III.DAT-horse
‘‘how have you been, My Horse?’’

‘hmm anchokma!’ *A̲soba aashtok.
am-chokma am-soba aachi-tok
1SG.III.DAT-good 1SG.III.DAT-horse say-PST
‘‘hmm I'm well!’ My Horse said.’

"or" uh... \waaka'\, |waaka'|/!
‘or uh, cow, cow!’

waaka'. 'ishno'? chin~chokmataa, A̲shokha'?’ shokha'.
waaka' ishno' chim-chokma-taa am-shokha' shokha'
cow 2SG.PRO 2SG.III.DAT-good-Q 1SG.III.DAT-pig pig
‘cow. ‘and you? how are you, My Pig?’ pig.’

‘hmm... anchokma kanihmo'si’ aashtok. uh...
am-chokma kanihmo'si aachi-tok
1SG.III.DAT-good a.little say-PST
‘hmm… ‘I’m kinda ok,’ he said. uh...

HAP: yammak illa, yammak illa.
‘that's it, that's it.’

JAB: :) yammak illa.
‘:) that's it.’

HAP: yammak illa. uh, oblaashaash...
‘that's it. uh, yesterday...’

nanta ishkatihmitaam?
nanta ish-katihmi-taam
what 2SG.I-do.what.INT-Q.PST
‘what did you do?’

JAB: oblaashaash...
‘yesterday...’

um... oblaashaash...
‘um... yesterday...’

uh... hashi' kanalli hánna'li* saokchatok.’
hashi' kanalli hánna'li sa-okcha-tok
sun.moon moving be.six 1SG.II-awake-PST
‘uh (at) six o'clock I woke up.’

HAP: mmhmm.

JAB: *micha taanilitok. uh... kafi' ikbilitok.
micha taani-li-tok kafi' ikbi-li-tok
and get.up-1SG.I-PST coffee make-1SG.I-PST
‘and I got up. uh... I made coffee.’

oka' yopilitok. uh aatoksali'...
oka' yopi-li-tok aatoksali'
water bathe-1SG.I-PST office
‘I bathed. uh... office..’

oh, uh... aatoksali' onalitok hashi' kanalli ontochchí'na*.
aatoksali' ona-li-tok hashi' kanalli ontochchí'na
office arrive.here-1SG.I-PST sun.moon moving be.eight
‘oh, uh... I arrived at work at eight o'clock.’

HAP: mmhmm

JAB: hmm... hmm... uh... waaka' nipi' ittalatta'a'... apalitok.
waaka' nipi' ittalatta'a' apa-li-tok
cow meat sandwich eat-1SG.I-PST
'I ate… a hamburger'

HAP: mmhmm

JAB: oklhiliaash. hmm...
last night. hmm....

holba' aapisa' pisalitok. fohalitok.
holba'aapisa' pisa-li-tok foha-li-tok
television look.at-1SG.I-PST rest-1SG.I-PST
'I watched TV. I rested.'

osilitok hashi' kanalli' awa-chaffa.
nosi-li-tok hashi' kanalli' awa-chaffa
sleep-1SG.I-PST sun.moon moving and.NUM-one
'I went to sleep at eleven.'

HAP: chokma.
'good.'

JAB: yammak illa.
'that's it.'

HAP: himmak obyaka̲...
'this evening...

himmak obyaka̲ nanta ishimpa'chi?
himmakobya-ka̲ nanta ish-impa-a'chi
this.night-CMP.DS what.INT 2SG.I-dine-INC
'what will you eat?'

JAB: hmm... uh... himmak obyakma̲...
'hmm… uh... this evening...'

chaloklowa', chaloklowa' nipi' ittalatta'a' ibaa*-mastat. toklo.
chaloklowa' nipi' ittalatta'a' ibaa mastat toklo
turkey meat sandwich with mustard be.two
'turkey, turkey sandwich *with mustard. two.'

HAP: mmhmm, mmhmm

JAB: sa~ *saishtaya, sa~ sa~ saniha* ishtaya, Ihoo Himitta'.
sa-ishtaya sa-niha ishtaya
1SG.II-start 1SG.II-be.fat start
'I'm starting to get fat, Ihoo Himitta'.'

yammak illa!
'that's it!'

HAP: um... nanta, katihmi, ishanhínchi? nanta *kanihmi \katihmi\ ishanhínchi?
nanta katihmi ish-anhínchi nanta kanihmi katihmi ish-anhínchi
what.INT do.what.INT 2SG.I-like what.INT do.what.INF do.what.INT 2SG.I-like
'what do you like to do? what do you like to do?'

JAB: ah, uh... oskola', uh..
'flute...'

chokoshkomoli?
chokoshkomo-li
play-1SG.I
'I play it?'

HAP: mmhmm

JAB: |oskola' chokoshkomoli|. uh, *micha...
oskola' chokoshkomo-li micha
flute play-1SG.I and
'I play the flute. uh, and...'

uh... to'wa' iskanno', to'wa' iskanno' tohbi' chokoshkomoli.
to'wa iskanno-' to'wa' iskanno-' tohbi-' chokoshkomo-li
ball small-NMZ ball small-NMZ white-NMZ play-1SG.I
'uh... golf, I play golf.

HAP: mmhmm

JAB: um, uh... Chahta' taloowa' taloowali. *ayokpánchili.
Chahta' taloowa' taloowa-li ayokpánchi-li
Choctaw song sing-1SG.I like-1SG.I
'um, uh... I sing Choctaw hyms. I like them.'

HAP: mmhmm

JAB: hmm... Chikashsha... Chikashsha anompoli, Chikashsha anompolili*
Chikashsha anompoli Chikashsha anompoli-li
Chickasaw speak Chickasaw speak-1SG.I
'hmm.. Chickasaw... speak Chickasw, I speak Chickasaw.'

JAB: *ayokpánchili.
ayokpánchi-li
like-1SG.I
‘I like it.’

hmm, uh...

ihoo imilhlha'...
ihoo imilhlha-'
women wild-NMZ
‘wild women...’

lhiyohlili.
lhiyohli-li
chase-1SG.I
‘I chase them.’

HAP: :)

JAB: yammak illa. :)
‘that's it. :)’

HAP: aaimpa' yappa nanna ma̲...
aaimpa' yappa nanna yamm- a̲
table PROX.DEM what.INF DIST.DEM- ACC
‘on this table, something...’

i̲'shicha amano̲li nannooka̲.
i̲'shi-cha am-ano̲li nannooka̲
grab-and.SS 1SG.III.DAT-tell what.it.is
‘grab it and tell me what it is.’

JAB: aachi ano̲wa'.
‘say (it) again.’

HAP: aaimpa' yappa...
‘this table…’

JAB: i̲i.
‘yeah.’

HAP: nanna ma̲ i̲'shicha...
nanna yamm-a̲ i̲'shi-cha
what.INF DIST.DEM-ACC grab-and.SS
‘grab something and...’

HAP: amanoli nannooka.
am-anoli nannooka
1SG.III.DAT-tell what.it.is
'tell me what it is.'

JAB: hmm... <<picks up stuffed animal from the table>>

HAP: chokma.
'good.'

JAB: uh, shokha'.
'uh, pig.'

HAP: mmhmm

JAB: uh... |aaimpa' nanna|... shokha'...
'uh... table something... pig...'

HAP: amanoli.
am-anoli
1SG.III.DAT-tell
'tell me.'

JAB: yammak illa.
'that's it.'

HAP: ishnaakot, ishnaakot...
ishno'-akot
2SG.PRO-NOM.CONTR
'you, you…'

nannahma amasilhha.
nanna-hma am-asilhha
what.INF-INDF.ACC 1SG.III.DAT-ask
'ask me something.'

JAB: uh... hmm... Ihoo Himitta'.

HAP mmhmm

JAB: oklhilihma, nanta ishkatihma'chi?
oklhili-hma nanta ish-katihmi-a'chi
be.night-REAL.DS what 2SG.I-do.what.INT-INC
'tonight what are you going to do?'

HAP: himmak obyaka̲ Sulphur píla ayala'chi.
himmakobyaka̲ Sulphur píla aya-li-a'chi
tonight Sulphur just.LOC go-1SG.I-INC
‘tonight I'm just going to go to Sulphur.’

JAB: hmm

HAP: Chikashshanompa' aayimma...
Chickasaw.language concerning
‘it’s concerning Chickasaw language...’

hattak alhiha' ithanachilikat,
hattak alhiha-' ithana-chi-li-kat
people be.bunch-NMZ learn-CAUS-1SG.I-CMP.SS
‘the bunch of people that I'm teaching,’

looittafama'cha looittibaa-impa'chi.
loo-itti-afama-cha loo-itti-ibaa-impa-a'chi
1PL.SP-RECP-meet-and.SS 1PL.SP-RECP-with-eat-INC
‘we'll get together and we'll eat together.’

JAB: uh... hashi' kanalli *nanta ishtaya?
hashi' kanalli nanta ishtaya
sun.moon moving what start
‘uh... what time is it starting?’

HAP: hashi' kanlli hánna'li.
‘six o’clock.’

JAB: |hánna'li|, hmm.
‘six, hmm.’

HAP: mmhmm

JAB: *alala'chi?*
ala-li-a'chi
come.here-1SG.I-INC
‘will I come here?’

HAP: ishno', ^‘onala'chi’.
ishno' ona-li-a'chi
2SG.PRO arrive.there-1SG.I-INC
‘you, ‘I'll go ^over there?’’.

JAB: {onala'chi?} |onala'chi, onala'chi|.

HAP: mmhmm, um... nita', &nita'&, ishpísakmat...
nita ish-písa-hmat
bear 2SG.I-look.at.NGR-IRR.SS
'a bear, *a bear*, if you see it...'

nanta... kaniya'ma,
nanta kaniya'ma
what somewhere
'what... somewhere,'

nita' ishpísatokhmat nanta ishkatihma'ntok?
nita' ish-písa-tok-hmat nanta ish-katihmi-a'ni-tok
bear 2SG.I-look.at.NGR-PST-REAL.SS what 2SG.I-do.what.INT-POT-PST
'after you saw a bear what might have you done?'

JAB: *nittak?
'today?'

HAP: ^&nita'&.
'a bear.'

JAB: {nita'}.

HAP: nita' ishpísakmat, nanta ishkatihma'ni?
nita' ish-písa-kmat nanta ish-katihmi-a'ni
bear 2SG.I-look.at.NGR-IRR.SS what 2SG.I-do.what.INT-POT
'if you saw a bear, what would you do?'

JAB: |nita'|...
'bear...'

|ishpísa|...
'you see it...'

aachi anowa', chaffa* anowa'.
'say (it) again, one again.'

HAP: nita'...
'a bear...'

JAB: uh-huh

HAP: kaniya'ha ishpísakmat nanta ishkatihma'ni?
kaniya'ha ish-písa-kmat nanta ish-katihmi-a'ni
somewhere 2SG.I-look.at.NGR-IRR.SS what 2SG.I-do.what.INT-POT
'if you saw one somewhere what would you do?'

JAB: …

oh!!!! uh...

uh... nita'... abila'chi. |nita' abila'chi|.
nita' abi-li-a'chi
bear kill-1SG.I-INC
‘uh... I'll kill the bear. I'll kill the bear.’

HAP: :) ho'mi.
‘:) ok.’

JAB: ii. :)
‘yeah. :)’

HAP: katihmi...
‘why...’

katihmihta Chikashshanompa' ithana chibanna?
katihmihta Chikashshanompa' ithana chi-banna
why Chickasaw.language learn 2SG.II-want
‘why do you want to learn Chickasaw?’

JAB: uh... ittianompoli*...
itti-anompoli
RECP-speak
‘uh… speak together...’

anompa' toshooli* *micha ittianompoli* uh...
anompa' toshooli micha itti-anompoli
word.language translate and RECP-speak
‘translate and speak together uh...’

Chikashsha' holisso anompilhbashsha*
Chickasaw book pray
‘Chickasaw prayer book’

*micha uh Chahta' taloowa' *taloowalitok...
micha Chahta' taloowa' taloowa-li-tok
and Choctaw song sing-1SG.I-PST
‘and I sang Choctaw hymns…’

aalhpí'sa'? yammak illa?
‘right? that's it?’

HAP: chaffo'.
‘one more.’

JAB: oh, uh, biniili* uh "immersion" aaimpa'*.
‘oh, uh, sit down uh immersion table.’

HAP: um... afammi... afammi talhlhá'pikma̲....
afammi talhlhá'pi-kma̲
year be.five-IRR.DS
‘um… years… in five years...’

nanta katihmi chibanna?
nanta katihmi chi-banna
what do.what.INT 2SG.II-want
‘what do you want to do?’

JAB: hmm... uh... uh...

katihmili *himmako'sa̲?
katihmi-li himmako'sa
do.what.INT-1SG.I right.now
‘*(what) I do right now?’

uh, talhlhá'pi, \talhlhá'pikma̲\, |talhlhá'pikma̲|...
‘uh, five, in five, in five...’

HAP: mmhmm, mmhmm

JAB: |talhlhá'pikma̲|...
‘in five...’

uh... ba' uh ba' *talhlhá'pi afammi?
‘uh... or uh or five years?’

HAP: ^|afammi talhlhá'pikma̲|...
afammi talhlhá'pi-kma̲
year be.five-IRR.DS
‘in five years...’

JAB: {afammi talhlhá'pikma̲}, um...
‘in five years um...’

HAP: nanta katihmi chibanna?
nanta katihmi chi-banna
what do.what.INT 2SG.II-want
‘what do you want to do?’

JAB: *sakatihmi* *himmako'sa̲. mmhmm
sa-katihmi himmako'sa̲
1SG.II-do.what.INT right.now
‘*(what) I'm doing right now. mmhmm.’

uh... aalhpi'sa'?
‘uh... right?’

"yeah" nanta katihmi, *himmaka'? talhlhá'pi afammi?
yeah what do.what.INT now five year
‘*yeah what doing, now? five years?’

uh... *tó̲wa, |*tó̲wa|?
tó̲wa
stay.there.SG.SBJ
‘uh... stay there? stay there?’

HAP: yammak illa.
‘that’s it.’

JAB: yammak illa.
‘that’s it.’